
Appendix H
Investigated Derived Waste (IDW Analysis)

Investigated Derived Waste (IDW) Analysis - Procedures and Results

Remedial Investigation at ASARCO LLC Hayden Plant Site

PREPARED FOR: John Hillenbrand (USEPA)

PREPARED BY: CH2M HILL

DATE: June 14, 2006

PROJECT NUMBER: 335404.FI.04

Introduction

This memorandum briefly describes the procedures and results for investigation-derived waste (IDW) generated in early 2006 during drilling activities, monitoring well installation, and well development portion of the ongoing remedial investigation at the ASARCO LLC Hayden Plant site (Site). The IDW included soil cuttings mixed with groundwater produced during drilling which are contained in two roll-off bins, and the purge water from well development which is contained in two polyethylene tanks. Based on approval from ASARCO prior to the start of work, the roll-off bins are located in the Laydown Yard west of the main gate within the Site. The two polyethylene tanks are located near GW-3 within the Hayden Well Field. Minor additional IDW generated at the site (e.g., debris such as empty bentonite bags and excess well pipe, excess grout, used personal protective equipment) was disposed of by the drilling subcontractor as non-hazardous general refuse.

Purpose

The IDW generated during field activities was containerized primarily for housekeeping purposes since some wells were located adjacent to public areas, and secondarily to avoid possible migration of any contaminants which may be present in IDW to surface soils and surface water. To determine final disposal of the IDW, soil/cuttings from the roll-off bins were sampled and analyzed for Toxicity Characteristic Leaching Program (TCLP) volatile organic compounds (VOCs), TCLP semi-volatile organic compounds (SVOCs), TCLP RCRA eight metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, mercury) and corrosivity, reactivity, ignitability and toxicity (CRIT). Water from the polyethylene tanks was sampled and analyzed for target compound list (TCL) VOCs, TCL SVOCs, and the Target Analyte List (TAL) inorganics. The requested analytes suites are detailed in the Field Sampling Plan (FSP). The results were compared to applicable standards to evaluate whether the IDW can be disposed of within the Site or needs to be taken off-site for disposal at a waste facility.

Procedures

Separate samples were collected from each of the roll-off bins and polyethylene tanks on February 7, 2006, following the completion of drilling and most well development activities. Collecting IDW samples from the roll-off bins was conducted by using a stainless steel spoon to grab soil from different locations in the bin to create a composite sample. The composite was spooned into the appropriate sample jars. The sample equipment was decontaminated between samples according to the FSP. Additionally, one duplicate sample was taken from one of the roll-off bins.

Collecting IDW samples from the polyethylene tanks was conducted by lowering a disposable bailer mid-depth into the tank from the top and collecting the water. The bailer was retrieved and the water was transferred into the appropriate sample containers. A new disposable bailer was used for each tank. Additionally, one duplicate sample was taken from one of the polyethylene tanks.

Sample labeling, the chain-of-custody (COC), and shipping procedures followed the guidelines set forth in the FSP.

Furthermore, prior to the start of the groundwater sampling events, the preliminary results of the IDW water sample analysis for the polyethylene tanks were received. These results were forwarded to Jack Garrity (ASARCO) on March 2, 2006. Per discussions with Mr. Garrity, based on the data and standard practices followed by ASARCO's consultant which entail discharging monitor well purge water directly to the ground surface, he approved allowing the purge water from the newly installed wells to be discharged to the ground surface during monitor well sampling.

Results and Conclusions

The results of the soil and water IDW samples were received by early March 2006. The results were non-detect (ND) for the majority of the analytes tested for. Analytes found above detection limit are listed in Tables 1 and 2 and the results are compared with the applicable standards. No analytes exceeded the applicable standards. The CRIT analysis was negative, thereby confirming that IDW soil is non-hazardous. The complete laboratory results are in Attachment A.

Based on these results, the IDW is considered non-hazardous. Pending ASARCO review and approval of the results, the contents of the roll-off bins may be disposed of at the on-site landfill or other appropriate location, and the contents of the polyethylene tanks may be discharged into a surface water containment basin. Written approval for this approach was obtained from EPA on May 26, 2006. Written approval from ASARCO will be obtained prior to proceeding with this effort.

TABLE 1
Analytic Results for Purge Water Investigation Derived Waste
Asarco LLC Hayden Plant Site Remedial Investigation

Analyte	Result ($\mu\text{g/L}$)	MCL ($\mu\text{g/L}$)	AWQS ($\mu\text{g/L}$)
Metals			
Aluminum ¹	23	--	--
Aluminum ²	870	--	--
Arsenic ¹	5.1	10	50
Arsenic ²	7	10	50
Barium ¹	43	2000	2000
Barium ²	35	2000	2000
Boron ¹	100	--	--
Boron ²	180	--	--
Calcium ¹	130000	--	--
Calcium ²	68000	--	--
Chromium ¹	16	100	100
Chromium ²	3.4	100	100
Cobalt ¹	2.2	--	--
Cobalt ²	0.59	--	--
Copper ¹	3.4	1300	--
Copper ²	11	1300	--
Iron ²	660	--	--
Magnesium ¹	100000	--	--
Magnesium ²	15000	--	--
Manganese ¹	17	--	--
Manganese ²	13	--	--
Mercury ¹	0.023	2	2
Mercury ²	0.015	2	2
Molybdenum ¹	9.6	--	--
Molybdenum ²	13	--	--
Potassium ¹	7100	--	--
Potassium ²	5200	--	--
Selenium ¹	7.2	50	50

TABLE 1
 Analytic Results for Purge Water Investigation Derived Waste
Asarco LLC Hayden Plant Site Remedial Investigation

Analyte	Result (µg/L)	MCL (µg/L)	AWQS (µg/L)
Selenium ²	0.96	50	50
Silver ¹	0.48	--	--
Sodium ¹	110000	--	--
Sodium ²	150000	--	--
Vanadium ¹	17	--	--
Vanadium ²	7.8	--	--
Zinc ²	40	--	--
<i>Volatile Organic Compounds</i>			
1,1,1-Trichloroethane ¹	8.9	200	200
1,2,3-Trichlorobenzene ¹	0.8	--	--
1,2,4-Trichlorobenzene ¹	0.9	70	70
Acetone ¹	16	--	--
Acetone ²	14	--	--
Chloroform ¹	0.5	100	--
<i>Semi Volatile Organic Compounds</i>			
1,2,4-Trichlorobenzene ¹	0.8	70	70
1,4-Dioxane ¹	0.5	--	--
13-Docosenamide, (Z)- ²	2.4	--	--
4-Pyrazolin-3-one, 1-phenyl-	4.9	--	--
bis(2-Ethylhexyl) phthalate ¹	1.3	6	6
bis(2-Ethylhexyl) phthalate ²	1.1	6	6
Butyl benzyl phthalate ¹	0.5	--	--
Ethanol, 2-[2-[2-[2-[p-(1,1... ²	7.1	--	--
Ethanol, 2-[2-[4-(1,1,3,3-t... ²	30	--	--
Ethanol, 2-butoxy-, phospha... ²	2.4	--	--
Indazole, nitro ¹	13	--	--
Stigmasterol ¹	11	--	--
unknown 10 ²	3.6	--	--

TABLE 1
 Analytic Results for Purge Water Investigation Derived Waste
Asarco LLC Hayden Plant Site Remedial Investigation

Analyte	Result ($\mu\text{g/L}$)	MCL ($\mu\text{g/L}$)	AWQS ($\mu\text{g/L}$)
unknown 4 ²	7.9	--	--
unknown 6 ²	18	--	--
unknown 7 ²	2.2	--	--
unknown C ₂₀ H ₃₄ O ₄ ²	13	--	--
unknown oxygenated ¹	2	--	--

Notes:

1) Sample taken from roll-off bin # 1

2) Sample taken from roll-off bin # 2

MCL – Maximum Contaminant Level

AWQS – Aquifer Water Quality Standard (Arizona)

TABLE 2
Analytic Results for Drill Cuttings Investigation Derived Waste
Asarco LLC Hayden Plant Site Remedial Investigation

Analyte	Result (mg/L)	Maximum for TCLP Extraction (mg/l)
<i>Toxicity Characteristic Leaching Procedure (TCLP) Metals</i>		
Barium ¹	0.26	100.0
Barium ²	0.15	100.0
Cadmium ¹	0.09	1.0
Cadmium ²	0.006	1.0
Chromium ¹	0.01	5.0
Chromium ²	0.02	5.0
Mercury ²	0.00002	0.2
<i>pH Measurement</i>		
pH ¹	8.6 (unitless)	--
pH ²	8.5 (unitless)	
<i>Volatile Organic Compounds</i>		
All VOCs were non-detect	--	--
<i>Semi Volatile Organic Compounds</i>		
bis(2-Ethylhexyl) phthalate ¹	0.006	--
bis(2-Ethylhexyl) phthalate ²	0.008	--
unknown 1 ²	0.02	--
unknown 3 ²	0.02	--
unknown ester ²	0.02	--
<i>Corrosivity/Reactivity/Ignitability/Toxicity (CRIT)</i>		
All CRIT values were negative		

Notes:

- 1) Sample taken from poly tank # 1
- 2) Sample taken from poly tank # 2

Attachments

Attachment A: Laboratory Results



**United States Environmental Protection Agency
Region 9 Laboratory**
1337 S. 46th Street Building 201
Richmond, CA 94804

Subject: Analytical Testing Results - Project R06S25
SDG: 06041A

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: John Hillenbrand
Private Site and DOE Section
SFD-8-2

Attached are the results from the analysis of samples from the **ASARCO Feb 2006 IDW Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this

Metals, TCLP, ICP
pH

Metals, TCLP, Mercury
TCLP extraction



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/21/06 13:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
IDW-S-01-020706	0602012-01	Soil	02/07/06 18:00	02/09/06 14:50
IDW-S-02-020706	0602012-02	Soil	02/07/06 17:30	02/09/06 14:50
IDW-S-0X-020706	0602012-03	Soil	02/07/06 17:00	02/09/06 14:50

TCLP, ICP Metals, Batch B6B0061: The blank spike recovery for selenium (116%) was outside the QC limits of 85 - 115% (biased high). All selenium sample results were non-detected and are reported without qualification.

Samples were received at 10 deg. C which is outside the recommended temperature range of 0 to 6 deg. C. No adverse impact is anticipated on the data quality.



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Phone:(510) 412-2300 Fax:(510) 412-2302

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Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/21/06 13:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-01								Soil - Sampled: 02/07/06 18:00
Sample ID: IDW-S-01-020706								TCLP Extraction by EPA 1311
TCLP Extraction	Not applicable.		1.0	N/A	B6B0052	02/13/06	02/16/06	1311/SOP250
Arsenic	ND	U	0.20	mg/L	B6B0061	02/14/06	02/15/06	200.7/SOP505
Barium	0.26		0.01	"	"	"	02/15/06	200.7/SOP505
Cadmium	0.09		0.005	"	"	"	02/15/06	200.7/SOP505
Chromium	0.01		0.01	"	"	"	"	200.7/SOP505
Lead	ND	U	0.10	"	"	"	02/15/06	200.7/SOP505
Selenium	ND	U	0.20	"	"	"	"	200.7/SOP505
Silver	ND	U	0.01	"	"	"	"	200.7/SOP505
Mercury	ND	U	0.00003	"	B6B0072	02/15/06	02/15/06	245.1/SOP515
pH	8.6	A3, J	0.10	pH Units	B6B0038	02/17/06	02/17/06	9045C/SOP 582
Lab ID: 0602012-02								Soil - Sampled: 02/07/06 17:30
Sample ID: IDW-S-02-020706								TCLP Extraction by EPA 1311
TCLP Extraction	Not applicable.		1.0	N/A	B6B0052	02/13/06	02/16/06	1311/SOP250
Arsenic	ND	U	0.20	mg/L	B6B0061	02/14/06	02/15/06	200.7/SOP505
Barium	0.15		0.01	"	"	"	02/15/06	200.7/SOP505
Cadmium	0.006		0.005	"	"	"	"	200.7/SOP505
Chromium	0.02		0.01	"	"	"	"	200.7/SOP505
Lead	ND	U	0.10	"	"	"	02/15/06	200.7/SOP505
Selenium	ND	U	0.20	"	"	"	"	200.7/SOP505
Silver	ND	U	0.01	"	"	"	"	200.7/SOP505
Mercury	0.00002	J, C1	0.00003	"	B6B0072	02/15/06	02/15/06	245.1/SOP515
pH	8.5	A3, J	0.10	pH Units	B6B0038	02/17/06	02/17/06	9045C/SOP 582
Lab ID: 0602012-03								Soil - Sampled: 02/07/06 17:00
Sample ID: IDW-S-0X-020706								TCLP Extraction by EPA 1311
TCLP Extraction	Not applicable.		1.0	N/A	B6B0052	02/13/06	02/16/06	1311/SOP250
Arsenic	ND	U	0.20	mg/L	B6B0061	02/14/06	02/15/06	200.7/SOP505
Barium	0.20		0.01	"	"	"	02/15/06	200.7/SOP505
Cadmium	0.005		0.005	"	"	"	"	200.7/SOP505
Chromium	0.02		0.01	"	"	"	"	200.7/SOP505
Lead	ND	U	0.10	"	"	"	02/15/06	200.7/SOP505
Selenium	ND	U	0.20	"	"	"	"	200.7/SOP505
Silver	ND	U	0.01	"	"	"	"	200.7/SOP505
Mercury	ND	U	0.00003	"	B6B0072	02/15/06	02/15/06	245.1/SOP515
pH	8.3	A3, J	0.10	pH Units	B6B0038	02/17/06	02/17/06	9045C/SOP 582



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/21/06 13:52

R9Q

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared & Analyzed: 02/17/06										

Batch B6B0038 - - General Inorganic -

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

pH

Duplicate (B6B0038-DUP1)

Source: 0602012-01

pH	8.68	0.10	pH Units	8.65	0.3	20
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Reference (B6B0038-SRM1)

pH	7.03		pH Units	7.00	100	98.6-101.4
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Prepared: 02/13/06 Analyzed: 02/16/06

TCLP Extraction by EPA 1311 - Quality Control

Batch B6B0052 - 1311 TCLP - TCLP

extraction

Blank (B6B0052-BLK1)

TCLP Extraction	Not applicable.	1.0	N/A			
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Duplicate (B6B0052-DUP1)

Source: 0602012-01

TCLP Extraction	Not applicable.	1.0	N/A	Not applicab	200	
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Prepared: 02/14/06 Analyzed: 02/15/06

Metals by EPA 200 Series Methods - Quality Control

Batch B6B0061 - Leachate Digest -

Metals, TCLP, ICP

Blank (B6B0061-BLK1)

Arsenic	ND	U	0.20	mg/L		
Barium	ND	U	0.01	"		
Cadmium	ND	U	0.005	"		
Chromium	ND	U	0.01	"		
Lead	ND	U	0.10	"		
Selenium	ND	U	0.20	"		
Silver	ND	U	0.01	"		

LCS (B6B0061-BS1)

Arsenic	0.882		0.20	mg/L	0.800	110	85-115
Barium	0.207		0.01	"	0.200	104	85-115
Cadmium	0.211		0.005	"	0.200	106	85-115
Chromium	0.422		0.01	"	0.400	106	85-115
Lead	1.00		0.10	"	1.00	100	85-115
Selenium	2.32		0.20	"	2.00	116	85-115
Silver	0.077		0.01	"	0.0750	103	85-115

Duplicate (B6B0061-DUP1)

Source: 0602012-01

Arsenic	ND	U	0.20	mg/L	ND		20
Barium	0.257		0.01	"	0.256		0.4 20
Cadmium	0.102		0.005	"	0.090		12 20
Chromium	0.011		0.01	"	0.011		0 20
Lead	ND	U	0.10	"	ND		20
Selenium	ND	U	0.20	"	ND		20
Silver	ND	U	0.01	"	ND		20

Matrix Spike (B6B0061-MS1)

Source: 0602012-01

Arsenic	0.796		0.20	mg/L	0.800	ND	100 70-130
Barium	0.430		0.01	"	0.200	0.256	87 70-130
Cadmium	0.262		0.005	"	0.200	0.090	86 70-130
Chromium	0.361		0.01	"	0.400	0.011	88 70-130



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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
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San Francisco CA, 94105

SDG: 06041A
Reported: 02/21/06 13:52

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Batch B6B0061 - Leachate Digest -

Metals by EPA 200 Series Methods - Quality Control

Metals, TCLP, ICP

Matrix Spike (B6B0061-MS1)

Source: 0602012-01

Lead	0.791	0.10	"	1.00	ND	79	70-130		
Selenium	2.03	0.20	"	2.00	ND	102	70-130		
Silver	0.070	0.01	"	0.0750	ND	93	70-130		

Matrix Spike Dup (B6B0061-MSD1)

Source: 0602012-01

Arsenic	0.793	0.20	mg/L	0.800	ND	99	70-130	0.4	20
Barium	0.426	0.01	"	0.200	0.256	85	70-130	0.9	20
Cadmium	0.257	0.005	"	0.200	0.090	84	70-130	2	20
Chromium	0.356	0.01	"	0.400	0.011	86	70-130	1	20
Lead	0.783	0.10	"	1.00	ND	78	70-130	1	20
Selenium	2.04	0.20	"	2.00	ND	102	70-130	0.5	20
Silver	0.069	0.01	"	0.0750	ND	92	70-130	1	20

Prepared & Analyzed: 02/15/06

Batch B6B0072 - Leachate Digest -

Metals by EPA 200 Series Methods - Quality Control

Metals, TCLP, Mercury

Blank (B6B0072-BLK1)

Mercury	ND	U	0.00003	mg/L
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Blank (B6B0072-BLK2)

Mercury	ND	U	0.00003	mg/L
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LCS (B6B0072-BS1)

Mercury	0.0002	0.00003	mg/L	0.000200	100	85-115
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Duplicate (B6B0072-DUP1)

Source: 0602012-01

Mercury	ND	U	0.00003	mg/L	ND		20
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Matrix Spike (B6B0072-MS1)

Source: 0602012-01

Mercury	0.0002	0.00003	mg/L	0.000200	ND	100	70-130
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Matrix Spike Dup (B6B0072-MSD1)

Source: 0602012-01

Mercury	0.0002	0.00003	mg/L	0.000200	ND	100	70-130	0	20
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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 02/21/06 13:52

Qualifiers and Comments

- NA Not applicable.
J The reported result for this analyte should be considered an estimated value.
C1 The reported concentration for this analyte is below the quantitation limit.
A3 The sample was extracted/analyzed past the recommended holding time.
U Not Detected
NR Not Reported



**United States Environmental Protection Agency
Region 9 Laboratory**
1337 S. 46th Street Building 201
Richmond, CA 94804

Subject: Analytical Testing Results - Project R06S25
SDG: 06041A

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: John Hillenbrand
Private Site and DOE Section
SFD-8-2

Attached are the results from the analysis of samples from the **ASARCO Feb 2006 IDW Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

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Analyses included in this

VOCs



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 03/07/06 09:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
IDW-S-01-020706	0602012-01	Soil	02/07/06 18:00	02/09/06 14:50
IDW-S-02-020706	0602012-02	Soil	02/07/06 17:30	02/09/06 14:50
IDW-S-0X-020706	0602012-03	Soil	02/07/06 17:00	02/09/06 14:50

VOC Analysis:

Samples were received at 10 deg. C which is outside the recommended temperature range of 0 to 6 deg. C. This may have an adverse affect on data quality.

Samples were received in jars. EPA method 5035A list a variety of container options for shipping samples for volatile organics analysis, but jars are not recommended. Loss of volatile compounds may have occurred.

Samples were collected on 2/7/06 and received on 2/9/06. Consequently, the samples were not analyzed or preserved within the 48 hour hold time recommended in EPA method 5035A. Loss of volatiles may have occurred.



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Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthrone Street
San Francisco CA, 94105

SDG: 06041A
Reported: 03/07/06 09:30

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-01								Soil - Sampled: 02/07/06 18:00
Sample ID: IDW-S-01-020706								Volatile Organic Compounds by EPA Method 8260B
Dichlorodifluoromethane	ND	A-01, U, J	2.9	ug/kg dry	B6B0081	02/10/06	02/16/06	8260B/SOP305
Chloromethane	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Vinyl chloride	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Bromomethane	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Chloroethane	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Trichlorofluoromethane	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
1,1-Dichloroethene	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305
Acetone	ND	C3, J, U, A-01	46	"	"	"	"	8260B/SOP305
Carbon disulfide	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Dichloromethane	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
trans-1,2-Dichloroethene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
tert-Butyl methyl ether (MTBE)	ND	A-01, U, J	11	"	"	"	"	8260B/SOP305
1,1-Dichloroethane	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Ethyl tert-butyl ether	ND	C3, J, A-01, U	11	"	"	"	"	8260B/SOP305
cis-1,2-Dichloroethene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
2-Butanone (MEK)	ND	C3, J, U, A-01	46	"	"	"	"	8260B/SOP305
Chloroform	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
1,1,1-Trichloroethane	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305
tert-Amyl methyl ether	ND	A-01, U, J	11	"	"	"	"	8260B/SOP305
1,1-Dichloropropene	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Benzene	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
1,2-Dichloroethane	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Carbon tetrachloride	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Trichloroethene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
1,2-Dichloropropane	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Bromodichloromethane	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
cis-1,3-Dichloropropene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
trans-1,3-Dichloropropene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
1,1,2-Trichloroethane	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305
4-Methyl-2-pentanone (MIBK)	ND	Q4, J, U, A-01	23	"	"	"	"	8260B/SOP305
Toluene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Tetrachloroethene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
1,3-Dichloropropane	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305
2-Hexanone	ND	Q4, J, U, A-01	46	"	"	"	"	8260B/SOP305
Chlorodibromomethane	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
1,2-Dibromoethane (EDB)	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
Chlorobenzene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Ethylbenzene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
m&p-Xylene	ND	A-01, U, J	5.7	"	"	"	"	8260B/SOP305
o-Xylene	ND	A-01, U, J	2.9	"	"	"	"	8260B/SOP305
Styrene	ND	J, Q6, A-01, U	2.9	"	"	"	"	8260B/SOP305
Bromoform	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
1,1,2-Tetrachloroethane	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 03/07/06 09:30

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-01								
Sample ID: IDW-S-01-020706								
1,2,3-Trichloropropane	ND	U, A-01, J	2.9	ug/kg dry	B6B0081	02/10/06	02/16/06	8260B/SOP305
1,3-Dichlorobenzene	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305
1,4-Dichlorobenzene	ND	U, J, A-01	2.9	"	"	"	"	8260B/SOP305
1,2-Dichlorobenzene	ND	U, A-01, J	2.9	"	"	"	"	8260B/SOP305
1,2-Dibromo-3-chloropropane	ND	Q4, J, U, A-01	11	"	"	"	"	8260B/SOP305
Surrogate: 1,2-Dichloroethane-d4	31.2		108 %	58-140%	"	"	"	
Surrogate: Toluene-d8	27.0		93 %	50-160%	"	"	"	
Surrogate: 4-Bromofluorobenzene	26.5		91 %	52-150%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	27.9		96 %	61-150%	"	"	"	
Lab ID: 0602012-02								
Sample ID: IDW-S-02-020706								
Dichlorodifluoromethane	ND	U, A-01, J	2.6	ug/kg dry	B6B0081	02/10/06	02/16/06	8260B/SOP305
Chloromethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Vinyl chloride	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
Bromomethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Chloroethane	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
Trichlorofluoromethane	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
1,1-Dichloroethene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Acetone	ND	U, C3, J, A-01	42	"	"	"	"	8260B/SOP305
Carbon disulfide	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
Dichloromethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
trans-1,2-Dichloroethene	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
tert-Butyl methyl ether (MTBE)	ND	U, A-01, J	11	"	"	"	"	8260B/SOP305
1,1-Dichloroethane	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
Ethyl tert-butyl ether	ND	A-01, U, C3, J	11	"	"	"	"	8260B/SOP305
cis-1,2-Dichloroethene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
2-Butanone (MEK)	ND	U, C3, J, A-01	42	"	"	"	"	8260B/SOP305
Chloroform	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,1,1-Trichloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
tert-Amyl methyl ether	ND	A-01, U, J	11	"	"	"	"	8260B/SOP305
1,1-Dichloropropene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
Benzene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
1,2-Dichloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Carbon tetrachloride	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
Trichloroethene	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dichloropropane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Bromodichloromethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
cis-1,3-Dichloropropene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
trans-1,3-Dichloropropene	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
1,1,2-Trichloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
4-Methyl-2-pentanone (MIBK)	ND	U, J, A-01	21	"	"	"	"	8260B/SOP305
Toluene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305



United States Environmental Protection Agency Region 9 Laboratory

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Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 03/07/06 09:30

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-02								
Sample ID: IDW-S-02-020706								
Tetrachloroethene	ND	U, A-01, J	2.6	ug/kg dry	B6B0081	02/10/06	02/16/06	8260B/SOP305
1,3-Dichloropropane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
2-Hexanone	ND	U, A-01, J	42	"	"	"	"	8260B/SOP305
Chlorodibromomethane	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dibromoethane (EDB)	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Chlorobenzene	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
Ethylbenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
m&p-Xylene	ND	U, A-01, J	5.3	"	"	"	"	8260B/SOP305
o-Xylene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Styrene	ND	A-01, U, J	2.6	"	"	"	"	8260B/SOP305
Bromoform	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,1,2,2-Tetrachloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2,3-Trichloropropane	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
1,3-Dichlorobenzene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
1,4-Dichlorobenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dichlorobenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dibromo-3-chloropropane	ND	U, A-01, J	11	"	"	"	"	8260B/SOP305
Surrogate: 1,2-Dichloroethane-d4	26.3		104 %	58-140%	"	"	"	
Surrogate: Toluene-d8	22.9		91 %	50-160%	"	"	"	
Surrogate: 4-Bromofluorobenzene	23.0		91 %	52-150%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	23.9		95 %	61-150%	"	"	"	

Lab ID: 0602012-03								
Sample ID: IDW-S-0X-020706								
Dichlorodifluoromethane	ND	U, J, A-01	2.6	ug/kg dry	B6B0081	02/10/06	02/16/06	8260B/SOP305
Chloromethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Vinyl chloride	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
Bromomethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Chloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Trichlorofluoromethane	2.8	J, A-01	2.6	"	"	"	"	8260B/SOP305
1,1-Dichloroethene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Acetone	ND	U, C3, J, A-01	42	"	"	"	"	8260B/SOP305
Carbon disulfide	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Dichloromethane	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
trans-1,2-Dichloroethene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
tert-Butyl methyl ether (MTBE)	ND	U, A-01, J	11	"	"	"	"	8260B/SOP305
1,1-Dichloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Ethyl tert-butyl ether	ND	U, C3, J, A-01	11	"	"	"	"	8260B/SOP305
cis-1,2-Dichloroethene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
2-Butanone (MEK)	ND	U, C3, J, A-01	42	"	"	"	"	8260B/SOP305
Chloroform	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,1,1-Trichloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
tert-Amyl methyl ether	ND	U, A-01, J	11	"	"	"	"	8260B/SOP305



United States Environmental Protection Agency Region 9 Laboratory

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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 03/07/06 09:30

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-03								Soil - Sampled: 02/07/06 17:00
Sample ID: IDW-S-0X-020706								Volatile Organic Compounds by EPA Method 8260B
1,1-Dichloropropene	ND	U, A-01, J	2.6	ug/kg dry	B6B0081	02/10/06	02/16/06	8260B/SOP305
Benzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dichloroethane	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
Carbon tetrachloride	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Trichloroethene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
1,2-Dichloropropane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Bromodichloromethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
cis-1,3-Dichloropropene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
trans-1,3-Dichloropropene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
1,1,2-Trichloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
4-Methyl-2-pentanone (MIBK)	ND	U, A-01, J	21	"	"	"	"	8260B/SOP305
Toluene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Tetrachloroethene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,3-Dichloropropane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
2-Hexanone	ND	U, A-01, J	42	"	"	"	"	8260B/SOP305
Chlorodibromomethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dibromoethane (EDB)	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Chlorobenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Ethylbenzene	ND	U, J, A-01	2.6	"	"	"	"	8260B/SOP305
m&p-Xylene	ND	U, A-01, J	5.3	"	"	"	"	8260B/SOP305
o-Xylene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Styrene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
Bromoform	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,1,2,2-Tetrachloroethane	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2,3-Trichloropropene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,3-Dichlorobenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,4-Dichlorobenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dichlorobenzene	ND	U, A-01, J	2.6	"	"	"	"	8260B/SOP305
1,2-Dibromo-3-chloropropane	ND	U, A-01, J	11	"	"	"	"	8260B/SOP305
Surrogate: 1,2-Dichloroethane-d4	26.6		104 %		58-140%	"	"	"
Surrogate: Toluene-d8	23.4		92 %		50-160%	"	"	"
Surrogate: 4-Bromofluorobenzene	23.0		90 %		52-150%	"	"	"
Surrogate: 1,2-Dichlorobenzene-d4	24.1		95 %		61-150%	"	"	"



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

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75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 03/07/06 09:30

R9Q

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared & Analyzed: 02/16/06

Batch B6B0081 - - General VOA - VOCs

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Blank (B6B0081-BLK1)

Dichlorodifluoromethane	ND	U	2.5	ug/kg wet						
Chloromethane	ND	U	2.5	"						
Vinyl chloride	ND	U	2.5	"						
Bromomethane	ND	U	2.5	"						
Chloroethane	ND	U	2.5	"						
Trichlorofluoromethane	ND	U	2.5	"						
1,1-Dichloroethene	ND	U	2.5	"						
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	ND	U	2.5	"						
Acetone	ND	U, C3, J	40	"						
Carbon disulfide	ND	U	2.5	"						
Dichloromethane	ND	U	2.5	"						
trans-1,2-Dichloroethene	ND	U	2.5	"						
tert-Butyl methyl ether (MTBE)	ND	U	10	"						
1,1-Dichloroethane	ND	U	2.5	"						
Ethyl tert-butyl ether	ND	U, C3, J	10	"						
cis-1,2-Dichloroethene	ND	U	2.5	"						
2-Butanone (MEK)	ND	U, J, C3	40	"						
Chloroform	ND	U	2.5	"						
1,1,1-Trichloroethane	ND	U	2.5	"						
tert-Amyl methyl ether	ND	U	10	"						
1,1-Dichloropropene	ND	U	2.5	"						
Benzene	ND	U	2.5	"						
1,2-Dichloroethane	ND	U	2.5	"						
Carbon tetrachloride	ND	U	2.5	"						
Trichloroethene	ND	U	2.5	"						
1,2-Dichloropropane	ND	U	2.5	"						
Bromodichloromethane	ND	U	2.5	"						
cis-1,3-Dichloropropene	ND	U	2.5	"						
trans-1,3-Dichloropropene	ND	U	2.5	"						
1,1,2-Trichloroethane	ND	U	2.5	"						
4-Methyl-2-pentanone (MIBK)	ND	U	20	"						
Toluene	ND	U	2.5	"						
Tetrachloroethene	ND	U	2.5	"						
1,3-Dichloropropane	ND	U	2.5	"						
2-Hexanone	ND	U	40	"						
Chlorodibromomethane	ND	U	2.5	"						
1,2-Dibromoethane (EDB)	ND	U	2.5	"						
Chlorobenzene	ND	U	2.5	"						
Ethylbenzene	ND	U	2.5	"						
m&p-Xylene	ND	U	5.0	"						
o-Xylene	ND	U	2.5	"						
Styrene	ND	U	2.5	"						
Bromoform	ND	U	2.5	"						
1,1,2,2-Tetrachloroethane	ND	U	2.5	"						
1,2,3-Trichloropropane	ND	U	2.5	"						



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Reported: 03/07/06 09:30

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared & Analyzed: 02/16/06

Batch B6B0081 - - General VOA - VOCs

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Blank (B6B0081-BLK1)

1,3-Dichlorobenzene	ND	U	2.5	"						
1,4-Dichlorobenzene	ND	U	2.5	"						
1,2-Dichlorobenzene	ND	U	2.5	"						
1,2-Dibromo-3-chloropropane	ND	U	10	"						
<i>Surrogate: 1,2-Dichloroethane-d4</i>	23.8			"	25.0		95	58-140		
<i>Surrogate: Toluene-d8</i>	23.0			"	25.0		92	50-160		
<i>Surrogate: 4-Bromofluorobenzene</i>	22.2			"	25.0		89	52-150		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	22.0			"	25.0		88	61-150		

LCS (B6B0081-BS1)

Dichlorodifluoromethane	22.4		2.5	ug/kg wet	25.0		90	0.01-190		
Chloromethane	23.8		2.5	"	25.0		95	48-160		
Vinyl chloride	24.2		2.5	"	25.0		97	59-150		
Bromomethane	27.5		2.5	"	25.0		110	49-160		
Chloroethane	23.7		2.5	"	25.0		95	63-140		
Trichlorofluoromethane	23.6		2.5	"	25.0		94	34-180		
1,1-Dichloroethene	24.2		2.5	"	25.0		97	70-120		
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	23.8		2.5	"	25.0		95	61-140		
Acetone	182		40	"	200		91	30-180		
Dichloromethane	23.1		2.5	"	25.0		92	65-120		
trans-1,2-Dichloroethene	22.1		2.5	"	25.0		88	69-130		
tert-Butyl methyl ether (MTBE)	91.7		10	"	100		92	54-150		
1,1-Dichloroethane	21.3		2.5	"	25.0		85	72-130		
cis-1,2-Dichloroethene	26.5		2.5	"	25.0		106	73-140		
2-Butanone (MEK)	221		40	"	200		110	58-154		
Chloroform	25.1		2.5	"	25.0		100	72-130		
1,1,1-Trichloroethane	24.8		2.5	"	25.0		99	73-130		
1,1-Dichloropropene	28.9		2.5	"	25.0		116	76-120		
Benzene	25.4		2.5	"	25.0		102	79-120		
1,2-Dichloroethane	24.2		2.5	"	25.0		97	77-130		
Carbon tetrachloride	24.8		2.5	"	25.0		99	61-140		
Trichloroethene	25.6		2.5	"	25.0		102	73-140		
1,2-Dichloropropane	25.4		2.5	"	25.0		102	84-120		
Bromodichloromethane	24.9		2.5	"	25.0		100	82-130		
cis-1,3-Dichloropropene	28.3		2.5	"	25.0		113	88-130		
trans-1,3-Dichloropropene	29.4		2.5	"	25.0		118	84-140		
1,1,2-Trichloroethane	24.9		2.5	"	25.0		100	82-130		
4-Methyl-2-pentanone (MIBK)	283	Q2	20	"	200		142	81-140		
Toluene	26.3		2.5	"	25.0		105	76-120		
Tetrachloroethene	26.0		2.5	"	25.0		104	79-130		
1,3-Dichloropropane	26.3		2.5	"	25.0		105	85-120		
2-Hexanone	352	Q2	40	"	200		176	67-150		
Chlorodibromomethane	25.8		2.5	"	25.0		103	80-140		
1,2-Dibromoethane (EDB)	25.4		2.5	"	25.0		102	84-130		
Chlorobenzene	25.8		2.5	"	25.0		103	78-123		
Ethylbenzene	28.0		2.5	"	25.0		112	78-120		



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 03/07/06 09:30

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared & Analyzed: 02/16/06										
Batch B6B0081 - - General VOA - VOCs										
Volatile Organic Compounds by EPA Method 8260B - Quality Control										
LCS (B6B0081-BS1)										
m&p-Xylene	51.3		5.0	"	50.0		103	74-130		
o-Xylene	28.5		2.5	"	25.0		114	78-130		
Styrene	27.6		2.5	"	25.0		110	73-140		
Bromoform	25.1		2.5	"	25.0		100	70-140		
1,1,2,2-Tetrachloroethane	23.5		2.5	"	25.0		94	75-130		
1,2,3-Trichloropropane	24.0		2.5	"	25.0		96	78-130		
1,3-Dichlorobenzene	26.2		2.5	"	25.0		105	76-130		
1,4-Dichlorobenzene	25.7		2.5	"	25.0		103	76-120		
1,2-Dichlorobenzene	25.0		2.5	"	25.0		100	76-130		
1,2-Dibromo-3-chloropropane	110		10	"	100		110	39-180		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	22.6			"	25.0		90	58-140		
<i>Surrogate: Toluene-d8</i>	24.3			"	25.0		97	50-160		
<i>Surrogate: 4-Bromofluorobenzene</i>	24.5			"	25.0		98	52-150		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	22.6			"	25.0		90	61-150		

Matrix Spike (B6B0081-MS1)

Source: 0602012-01

Dichlorodifluoromethane	20.2		2.7	ug/kg dry	26.7	ND	76	70-130		
Chloromethane	23.8		2.7	"	26.7	ND	89	70-130		
Vinyl chloride	23.2		2.7	"	26.7	ND	87	70-130		
Bromomethane	24.9		2.7	"	26.7	ND	93	70-130		
Chloroethane	22.7		2.7	"	26.7	ND	85	70-130		
Trichlorofluoromethane	23.7		2.7	"	26.7	ND	89	70-130		
1,1-Dichloroethene	22.2		2.7	"	26.7	ND	83	70-130		
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	22.7		2.7	"	26.7	ND	85	70-130		
Acetone	203		43	"	214	ND	95	70-130		
Dichloromethane	22.0		2.7	"	26.7	ND	82	70-130		
trans-1,2-Dichloroethene	20.4		2.7	"	26.7	ND	76	70-130		
tert-Butyl methyl ether (MTBE)	88.5		11	"	107	ND	83	70-130		
1,1-Dichloroethane	20.3		2.7	"	26.7	ND	76	70-130		
cis-1,2-Dichloroethene	24.5		2.7	"	26.7	ND	92	70-130		
2-Butanone (MEK)	229		43	"	214	ND	107	70-130		
Chloroform	23.9		2.7	"	26.7	ND	90	70-130		
1,1,1-Trichloroethane	25.3		2.7	"	26.7	ND	95	70-130		
1,1-Dichloropropene	27.2		2.7	"	26.7	ND	102	70-130		
Benzene	25.1		2.7	"	26.7	ND	94	70-130		
1,2-Dichloroethane	25.8		2.7	"	26.7	ND	97	70-130		
Carbon tetrachloride	25.1		2.7	"	26.7	ND	94	70-130		
Trichloroethene	26.0		2.7	"	26.7	ND	97	70-130		
1,2-Dichloropropane	25.7		2.7	"	26.7	ND	96	70-130		
Bromodichloromethane	25.2		2.7	"	26.7	ND	94	70-130		
cis-1,3-Dichloropropene	27.3		2.7	"	26.7	ND	102	70-130		
trans-1,3-Dichloropropene	28.3		2.7	"	26.7	ND	106	70-130		
1,1,2-Trichloroethane	25.4		2.7	"	26.7	ND	95	70-130		
4-Methyl-2-pentanone (MIBK)	286	Q4	21	"	214	ND	134	70-130		
Toluene	25.7		2.7	"	26.7	ND	96	70-130		
Tetrachloroethene	24.7		2.7	"	26.7	ND	93	70-130		



United States Environmental Protection Agency Region 9 Laboratory

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Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 03/07/06 09:30

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/16/06

Batch B6B0081 - - General VOA - VOCs

Source: 0602012-01

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Matrix Spike (B6B0081-MS1)	Source: 0602012-01									
1,3-Dichloropropane	26.8		2.7	"	26.7	ND	100	70-130		
2-Hexanone	309	Q4	43	"	214	ND	144	70-130		
Chlorodibromomethane	26.2		2.7	"	26.7	ND	98	70-130		
1,2-Dibromoethane (EDB)	26.0		2.7	"	26.7	ND	97	70-130		
Chlorobenzene	24.7		2.7	"	26.7	ND	93	70-130		
Ethylbenzene	27.0		2.7	"	26.7	ND	101	70-130		
m&p-Xylene	48.8		5.3	"	53.4	ND	91	70-130		
o-Xylene	27.5		2.7	"	26.7	ND	103	70-130		
Styrene	25.1		2.7	"	26.7	ND	94	70-130		
Bromoform	27.3		2.7	"	26.7	ND	102	70-130		
1,1,2,2-Tetrachloroethane	24.7		2.7	"	26.7	ND	93	70-130		
1,2,3-Trichloropropane	26.2		2.7	"	26.7	ND	98	70-130		
1,3-Dichlorobenzene	Not reported.	U, Q4	2.7	"	26.7	ND		70-130		
1,4-Dichlorobenzene	Not reported.	U, Q4	2.7	"	26.7	ND		70-130		
1,2-Dichlorobenzene	Not reported.	U, Q4	2.7	"	26.7	ND		70-130		
1,2-Dibromo-3-chloropropane	Not reported.	U, Q4	11	"	107	ND		70-130		
Surrogate: 1,2-Dichloroethane-d4	26.7			"	26.7		100	58-140		
Surrogate: Toluene-d8	25.9			"	26.7		97	50-160		
Surrogate: 4-Bromofluorobenzene	26.1			"	26.7		98	52-150		
Surrogate: 1,2-Dichlorobenzene-d4	0.00	U, Q7		"	26.7			61-150		

Matrix Spike Dup (B6B0081-MSD1) Source: 0602012-01

Dichlorodifluoromethane	23.2		2.7	ug/kg dry	27.1	ND	86	70-130	12	20
Chloromethane	26.3		2.7	"	27.1	ND	97	70-130	9	20
Vinyl chloride	25.0		2.7	"	27.1	ND	92	70-130	6	20
Bromomethane	29.6		2.7	"	27.1	ND	109	70-130	16	20
Chloroethane	25.6		2.7	"	27.1	ND	94	70-130	10	20
Trichlorofluoromethane	26.1		2.7	"	27.1	ND	96	70-130	8	20
1,1-Dichloroethene	24.6		2.7	"	27.1	ND	91	70-130	9	20
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	25.8		2.7	"	27.1	ND	95	70-130	11	20
Acetone	194		43	"	217	ND	89	70-130	7	20
Dichloromethane	23.5		2.7	"	27.1	ND	87	70-130	6	20
trans-1,2-Dichloroethene	22.5		2.7	"	27.1	ND	83	70-130	9	20
tert-Butyl methyl ether (MTBE)	87.1		11	"	108	ND	81	70-130	2	20
1,1-Dichloroethane	22.5		2.7	"	27.1	ND	83	70-130	9	20
cis-1,2-Dichloroethene	27.0		2.7	"	27.1	ND	100	70-130	8	20
2-Butanone (MEK)	216		43	"	217	ND	100	70-130	7	20
Chloroform	27.1		2.7	"	27.1	ND	100	70-130	11	20
1,1,1-Trichloroethane	28.6		2.7	"	27.1	ND	106	70-130	11	20
1,1-Dichloropropene	30.7		2.7	"	27.1	ND	113	70-130	10	20
Benzene	27.9		2.7	"	27.1	ND	103	70-130	9	20
1,2-Dichloroethane	26.5		2.7	"	27.1	ND	98	70-130	1	20
Carbon tetrachloride	29.4		2.7	"	27.1	ND	108	70-130	14	20
Trichloroethene	29.4		2.7	"	27.1	ND	108	70-130	11	20
1,2-Dichloropropane	27.7		2.7	"	27.1	ND	102	70-130	6	20
Bromodichloromethane	27.7		2.7	"	27.1	ND	102	70-130	8	20



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 03/07/06 09:30

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
										Prepared: 02/14/06 Analyzed: 02/16/06
Batch B6B0081 - - General VOA - VOCs										Volatile Organic Compounds by EPA Method 8260B - Quality Control
Matrix Spike Dup (B6B0081-MSD1)	Source: 0602012-01									
cis-1,3-Dichloropropene	29.4		2.7	"	27.1	ND	108	70-130	6	20
trans-1,3-Dichloropropene	31.0		2.7	"	27.1	ND	114	70-130	7	20
1,1,2-Trichloroethane	26.4		2.7	"	27.1	ND	97	70-130	2	20
4-Methyl-2-pentanone (MIBK)	294	Q4	22	"	217	ND	135	70-130	0.7	20
Toluene	29.8		2.7	"	27.1	ND	110	70-130	14	20
Tetrachloroethene	29.6		2.7	"	27.1	ND	109	70-130	16	20
1,3-Dichloropropane	27.9		2.7	"	27.1	ND	103	70-130	3	20
2-Hexanone	371	Q4	43	"	217	ND	171	70-130	17	20
Chlorodibromomethane	28.3		2.7	"	27.1	ND	104	70-130	6	20
1,2-Dibromoethane (EDB)	25.4		2.7	"	27.1	ND	94	70-130	3	20
Chlorobenzene	29.1		2.7	"	27.1	ND	107	70-130	14	20
Ethylbenzene	31.7		2.7	"	27.1	ND	117	70-130	15	20
m&p-Xylene	59.1		5.4	"	54.2	ND	109	70-130	18	20
o-Xylene	32.3		2.7	"	27.1	ND	119	70-130	14	20
Styrene	31.4	Q6	2.7	"	27.1	ND	116	70-130	21	20
Bromoform	26.2		2.7	"	27.1	ND	97	70-130	5	20
1,1,2,2-Tetrachloroethane	23.2		2.7	"	27.1	ND	86	70-130	8	20
1,2,3-Trichloropropane	24.7		2.7	"	27.1	ND	91	70-130	7	20
1,3-Dichlorobenzene	29.7		2.7	"	27.1	ND	110	70-130		20
1,4-Dichlorobenzene	29.3		2.7	"	27.1	ND	108	70-130		20
1,2-Dichlorobenzene	28.3		2.7	"	27.1	ND	104	70-130		20
1,2-Dibromo-3-chloropropane	106		11	"	108	ND	98	70-130		20
<i>Surrogate: 1,2-Dichloroethane-d4</i>	25.4			"	27.1		94	58-140		
<i>Surrogate: Toluene-d8</i>	27.1			"	27.1		100	50-160		
<i>Surrogate: 4-Bromofluorobenzene</i>	26.3			"	27.1		97	52-150		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	24.8			"	27.1		92	61-150		



United States Environmental Protection Agency

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Project Manager: John Hillenbrand

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 03/07/06 09:30

Qualifiers and Comments

- Q7 Surrogate spike recoveries for this sample were outside control limits.
- Q6 Matrix spike/matrix spike duplicate precision criteria were not met for this analyte (see MS/MSD results for this batch in QC summary).
- Q4 The matrix spike and/or matrix spike duplicate associated with this sample did not meet recovery criteria for this analyte (see MS/MSD results for this batch in QC summary)
- Q2 The laboratory control standard associated with this sample did not meet recovery criteria for this analyte (see LCS results for this batch in QC summary).
- NR Not reported.
- J The reported result for this analyte should be considered an estimated value.
- C3 The initial calibration for this analyte did not meet calibration criteria.
- A-01 Samples were received in containers not recommended for VOC analysis, above the recommended temperature range (2 - 6 degrees), and were extracted/analyzed past the recommended 48 hour hold time.
- U Not Detected
- NR Not Reported



**United States Environmental Protection Agency
Region 9 Laboratory**
1337 S. 46th Street Building 201
Richmond, CA 94804

Subject: Analytical Testing Results - Project R06S25
SDG: 06041A

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: John Hillenbrand
Private Site and DOE Section
SFD-8-2

Attached are the results from the analysis of samples from the **ASARCO Feb 2006 IDW Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this

SVOCs, TCLP



United States Environmental Protection Agency

Region 9 Laboratory

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Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
IDW-S-01-020706	0602012-01	Soil	02/07/06 18:00	02/09/06 14:50
IDW-S-02-020706	0602012-02	Soil	02/07/06 17:30	02/09/06 14:50
IDW-S-0X-020706	0602012-03	Soil	02/07/06 17:00	02/09/06 14:50



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Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-01								Soil - Sampled: 02/07/06 18:00
Sample ID: IDW-S-01-020706								Semivolatile Organic Compounds by EPA Method 8270C
1,4-Dioxane	ND	U	0.01	mg/L	B6B0063	02/14/06	02/15/06	8270C/SOP315
Phenol	ND	Q2, J, U	0.05	"	"	"	"	8270C/SOP315
bis(2-Chloroethyl)ether	ND	Q2, J, U	0.01	"	"	"	"	8270C/SOP315
2-Chlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,3-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
1,4-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzyl alcohol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,2-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Methylphenol	ND	C3, J, U	0.05	"	"	"	"	8270C/SOP315
2,2'-oxybis(1-Chloropropane)	ND	U	0.01	"	"	"	"	8270C/SOP315
3&4-Methylphenol	ND	Q2, J, C3, U	0.05	"	"	"	"	8270C/SOP315
N-Nitrosodipropylamine	ND	U	0.01	"	"	"	"	8270C/SOP315
Hexachloroethane	ND	U	0.01	"	"	"	"	8270C/SOP315
Nitrobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Isophorone	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Nitrophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2,4-Dimethylphenol	ND	U	0.05	"	"	"	"	8270C/SOP315
bis(2-Chloroethoxy)methane	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,2,4-Trichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Naphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chloroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Hexachlorobutadiene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chloro-3-methylphenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2-Methylnaphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.05	"	"	"	"	8270C/SOP315
2,4,6-Trichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2,4,5-Trichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2-Chloronaphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Dimethyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Acenaphthylene	ND	U	0.01	"	"	"	"	8270C/SOP315
2,6-Dinitrotoluene	ND	U	0.01	"	"	"	"	8270C/SOP315
3-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Acenaphthene	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dinitrophenol	ND	C4, J, Q3, U	0.05	"	"	"	"	8270C/SOP315
4-Nitrophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
Dibenzofuran	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dinitrotoluene	ND	U	0.01	"	"	"	"	8270C/SOP315
Diethyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Fluorene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chlorophenyl phenyl ether	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	0.05	"	"	"	"	8270C/SOP315
Diphenyl amine	ND	U	0.01	"	"	"	"	8270C/SOP315



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-01								Soil - Sampled: 02/07/06 18:00
Sample ID: IDW-S-01-020706								Semivolatile Organic Compounds by EPA Method 8270C
4-Bromophenyl phenyl ether	ND	U	0.01	mg/L	B6B0063	02/14/06	02/15/06	8270C/SOP315
Hexachlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Pentachlorophenol	ND	Q3, J, U	0.05	"	"	"	"	8270C/SOP315
Phenanthrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Anthracene	ND	U	0.01	"	"	"	"	8270C/SOP315
Carbazole	ND	U	0.01	"	"	"	"	8270C/SOP315
Di-n-butyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Pyrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Butyl benzyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(a)anthracene	ND	U	0.01	"	"	"	"	8270C/SOP315
3,3'-Dichlorobenzidine	ND	C3, J, U	0.05	"	"	"	"	8270C/SOP315
Chrysene	ND	U	0.01	"	"	"	"	8270C/SOP315
bis(2-Ethylhexyl) phthalate	0.006	C1, B1, J	0.01	"	"	"	"	8270C/SOP315
Di-n-octyl phthalate	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Benzo(b)fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(k)fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(a)pyrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Dibenz(a,h)anthracene	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Benzo(g,h,i)perylene	ND	U	0.01	"	"	"	"	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	0.0359		72 %	18-130%	"	"	"	
Surrogate: 2-Fluorophenol	0.605		81 %	32-130%	"	"	"	
Surrogate: Phenol-d5	0.585		79 %	42-120%	"	"	"	
Surrogate: 2-Chlorophenol-d4	0.626		84 %	42-120%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	0.355		72 %	24-110%	"	"	"	
Surrogate: Nitrobenzene-d5	0.420		85 %	27-140%	"	"	"	
Surrogate: 2-Fluorobiphenyl	0.414		83 %	45-110%	"	"	"	
Surrogate: 2,4,6-Tribromophenol	0.781		105 %	44-140%	"	"	"	
Surrogate: Terphenyl-d14	0.638		129 %	28-140%	"	"	"	



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
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SDG: 06041A
Reported: 02/24/06 14:32

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-02								Soil - Sampled: 02/07/06 17:30
Sample ID: IDW-S-02-020706								Semivolatile Organic Compounds by EPA Method 8270C
1,4-Dioxane	ND	U	0.01	mg/L	B6B0063	02/14/06	02/15/06	8270C/SOP315
Phenol	ND	Q2, J, U	0.05	"	"	"	"	8270C/SOP315
bis(2-Chloroethyl)ether	ND	Q2, J, U	0.01	"	"	"	"	8270C/SOP315
2-Chlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,3-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
1,4-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzyl alcohol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,2-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Methylphenol	ND	C3, J, U	0.05	"	"	"	"	8270C/SOP315
2,2'-oxybis(1-Chloropropane)	ND	U	0.01	"	"	"	"	8270C/SOP315
3&4-Methylphenol	ND	Q2, J, C3, U	0.05	"	"	"	"	8270C/SOP315
N-Nitrosodipropylamine	ND	U	0.01	"	"	"	"	8270C/SOP315
Hexachloroethane	ND	U	0.01	"	"	"	"	8270C/SOP315
Nitrobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Isophorone	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Nitrophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2,4-Dimethylphenol	ND	U	0.05	"	"	"	"	8270C/SOP315
bis(2-Chloroethoxy)methane	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,2,4-Trichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Naphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chloroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Hexachlorobutadiene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chloro-3-methylphenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2-Methylnaphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.05	"	"	"	"	8270C/SOP315
2,4,6-Trichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2,4,5-Trichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2-Chloronaphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Dimethyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Acenaphthylene	ND	U	0.01	"	"	"	"	8270C/SOP315
2,6-Dinitrotoluene	ND	U	0.01	"	"	"	"	8270C/SOP315
3-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Acenaphthene	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dinitrophenol	ND	C4, J, Q3, U	0.05	"	"	"	"	8270C/SOP315
4-Nitrophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
Dibenzofuran	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dinitrotoluene	ND	U	0.01	"	"	"	"	8270C/SOP315
Diethyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Fluorene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chlorophenyl phenyl ether	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	0.05	"	"	"	"	8270C/SOP315
Diphenyl amine	ND	U	0.01	"	"	"	"	8270C/SOP315



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-02								Soil - Sampled: 02/07/06 17:30
Sample ID: IDW-S-02-020706								Semivolatile Organic Compounds by EPA Method 8270C
4-Bromophenyl phenyl ether	ND	U	0.01	mg/L	B6B0063	02/14/06	02/15/06	8270C/SOP315
Hexachlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Pentachlorophenol	ND	Q3, J, U	0.05	"	"	"	"	8270C/SOP315
Phenanthrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Anthracene	ND	U	0.01	"	"	"	"	8270C/SOP315
Carbazole	ND	U	0.01	"	"	"	"	8270C/SOP315
Di-n-butyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Pyrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Butyl benzyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(a)anthracene	ND	U	0.01	"	"	"	"	8270C/SOP315
3,3'-Dichlorobenzidine	ND	C3, J, U	0.05	"	"	"	"	8270C/SOP315
Chrysene	ND	U	0.01	"	"	"	"	8270C/SOP315
bis(2-Ethylhexyl) phthalate	0.008	C1, B1, J	0.01	"	"	"	"	8270C/SOP315
Di-n-octyl phthalate	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Benzo(b)fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(k)fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(a)pyrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Dibenz(a,h)anthracene	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Benzo(g,h,i)perylene	ND	U	0.01	"	"	"	"	8270C/SOP315
Unknown 1	0.1	N TIC, J		"	"	"	"	8270C/SOP315
unknown 3	0.01	N TIC, J		"	"	"	"	8270C/SOP315
unknown ester	0.01	N TIC, J		"	"	"	"	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	0.0330		65 %	18-130%	"	"	"	
Surrogate: 2-Fluorophenol	0.538		71 %	32-130%	"	"	"	
Surrogate: Phenol-d5	0.516		68 %	42-120%	"	"	"	
Surrogate: 2-Chlorophenol-d4	0.554		73 %	42-120%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	0.367		73 %	24-110%	"	"	"	
Surrogate: Nitrobenzene-d5	0.372		74 %	27-140%	"	"	"	
Surrogate: 2-Fluorobiphenyl	0.376		74 %	45-110%	"	"	"	
Surrogate: 2,4,6-Tribromophenol	0.752		99 %	44-140%	"	"	"	
Surrogate: Terphenyl-d14	0.637		126 %	28-140%	"	"	"	



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-03								Soil - Sampled: 02/07/06 17:00
Sample ID: IDW-S-0X-020706								Semivolatile Organic Compounds by EPA Method 8270C
1,4-Dioxane	ND	U	0.01	mg/L	B6B0063	02/14/06	02/15/06	8270C/SOP315
Phenol	ND	Q2, J, U	0.05	"	"	"	"	8270C/SOP315
bis(2-Chloroethyl)ether	ND	Q2, J, U	0.01	"	"	"	"	8270C/SOP315
2-Chlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,3-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
1,4-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzyl alcohol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,2-Dichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Methylphenol	ND	C3, J, U	0.05	"	"	"	"	8270C/SOP315
2,2'-oxybis(1-Chloropropane)	ND	U	0.01	"	"	"	"	8270C/SOP315
3&4-Methylphenol	ND	Q2, J, C3, U	0.05	"	"	"	"	8270C/SOP315
N-Nitrosodipropylamine	ND	U	0.01	"	"	"	"	8270C/SOP315
Hexachloroethane	ND	U	0.01	"	"	"	"	8270C/SOP315
Nitrobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Isophorone	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Nitrophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2,4-Dimethylphenol	ND	U	0.05	"	"	"	"	8270C/SOP315
bis(2-Chloroethoxy)methane	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
1,2,4-Trichlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Naphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chloroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Hexachlorobutadiene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chloro-3-methylphenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2-Methylnaphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.05	"	"	"	"	8270C/SOP315
2,4,6-Trichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2,4,5-Trichlorophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
2-Chloronaphthalene	ND	U	0.01	"	"	"	"	8270C/SOP315
2-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Dimethyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Acenaphthylene	ND	U	0.01	"	"	"	"	8270C/SOP315
2,6-Dinitrotoluene	ND	U	0.01	"	"	"	"	8270C/SOP315
3-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
Acenaphthene	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dinitrophenol	ND	C4, J, Q3, U	0.05	"	"	"	"	8270C/SOP315
4-Nitrophenol	ND	U	0.05	"	"	"	"	8270C/SOP315
Dibenzofuran	ND	U	0.01	"	"	"	"	8270C/SOP315
2,4-Dinitrotoluene	ND	U	0.01	"	"	"	"	8270C/SOP315
Diethyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Fluorene	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Chlorophenyl phenyl ether	ND	U	0.01	"	"	"	"	8270C/SOP315
4-Nitroaniline	ND	U	0.05	"	"	"	"	8270C/SOP315
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	0.05	"	"	"	"	8270C/SOP315
Diphenyl amine	ND	U	0.01	"	"	"	"	8270C/SOP315



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

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SDG: 06041A
Reported: 02/24/06 14:32

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602012-03								Soil - Sampled: 02/07/06 17:00
Sample ID: IDW-S-0X-020706								Semivolatile Organic Compounds by EPA Method 8270C
4-Bromophenyl phenyl ether	ND	U	0.01	mg/L	B6B0063	02/14/06	02/15/06	8270C/SOP315
Hexachlorobenzene	ND	U	0.01	"	"	"	"	8270C/SOP315
Pentachlorophenol	ND	Q3, J, U	0.05	"	"	"	"	8270C/SOP315
Phenanthrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Anthracene	ND	U	0.01	"	"	"	"	8270C/SOP315
Carbazole	ND	U	0.01	"	"	"	"	8270C/SOP315
Di-n-butyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Pyrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Butyl benzyl phthalate	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(a)anthracene	ND	U	0.01	"	"	"	"	8270C/SOP315
3,3'-Dichlorobenzidine	ND	C3, J, U	0.05	"	"	"	"	8270C/SOP315
Chrysene	ND	U	0.01	"	"	"	"	8270C/SOP315
bis(2-Ethylhexyl) phthalate	0.007	C1, B1, J	0.01	"	"	"	"	8270C/SOP315
Di-n-octyl phthalate	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Benzo(b)fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(k)fluoranthene	ND	U	0.01	"	"	"	"	8270C/SOP315
Benzo(a)pyrene	ND	U	0.01	"	"	"	"	8270C/SOP315
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Dibenz(a,h)anthracene	ND	C3, J, U	0.01	"	"	"	"	8270C/SOP315
Benzo(g,h,i)perylene	ND	U	0.01	"	"	"	"	8270C/SOP315
Unknown 1	0.08	N TIC, J		"	"	"	"	8270C/SOP315
unknown 3	0.01	N TIC, J		"	"	"	"	8270C/SOP315
unknown ester	0.02	N TIC, J		"	"	"	"	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	0.0339		68 %	18-130%	"	"	"	
Surrogate: 2-Fluorophenol	0.570		76 %	32-130%	"	"	"	
Surrogate: Phenol-d5	0.484		64 %	42-120%	"	"	"	
Surrogate: 2-Chlorophenol-d4	0.563		75 %	42-120%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	0.372		74 %	24-110%	"	"	"	
Surrogate: Nitrobenzene-d5	0.379		76 %	27-140%	"	"	"	
Surrogate: 2-Fluorobiphenyl	0.403		80 %	45-110%	"	"	"	
Surrogate: 2,4,6-Tribromophenol	0.757		101 %	44-140%	"	"	"	
Surrogate: Terphenyl-d14	0.623		124 %	28-140%	"	"	"	



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 02/24/06 14:32

R9Q

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B6B0063 - Leachate Extraction -

SVOCs, TCLP

Blank (B6B0063-BLK1)

1,4-Dioxane	ND	U	0.01	mg/L						
Phenol	ND	Q2, J, U	0.05	"						
bis(2-Chloroethyl)ether	ND	Q2, J, U	0.01	"						
2-Chlorophenol	ND	U	0.05	"						
1,3-Dichlorobenzene	ND	U	0.01	"						
1,4-Dichlorobenzene	ND	U	0.01	"						
Benzyl alcohol	ND	U	0.05	"						
1,2-Dichlorobenzene	ND	U	0.01	"						
2-Methylphenol	ND	C3, J, U	0.05	"						
2,2'-oxybis(1-Chloropropane)	ND	U	0.01	"						
3&4-Methylphenol	ND	Q2, J, C3, U	0.05	"						
N-Nitrosodipropylamine	ND	U	0.01	"						
Hexachloroethane	ND	U	0.01	"						
Nitrobenzene	ND	U	0.01	"						
Isophorone	ND	U	0.01	"						
2-Nitrophenol	ND	U	0.05	"						
2,4-Dimethylphenol	ND	U	0.05	"						
bis(2-Chloroethoxy)methane	ND	U	0.01	"						
2,4-Dichlorophenol	ND	U	0.05	"						
1,2,4-Trichlorobenzene	ND	U	0.01	"						
Naphthalene	ND	U	0.01	"						
4-Chloroaniline	ND	U	0.05	"						
Hexachlorobutadiene	ND	U	0.01	"						
4-Chloro-3-methylphenol	ND	U	0.05	"						
2-Methylnaphthalene	ND	U	0.01	"						
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.05	"						
2,4,6-Trichlorophenol	ND	U	0.05	"						
2,4,5-Trichlorophenol	ND	U	0.05	"						
2-Chloronaphthalene	ND	U	0.01	"						
2-Nitroaniline	ND	U	0.05	"						
Dimethyl phthalate	ND	U	0.01	"						
Acenaphthylene	ND	U	0.01	"						
2,6-Dinitrotoluene	ND	U	0.01	"						
3-Nitroaniline	ND	U	0.05	"						
Acenaphthene	ND	U	0.01	"						
2,4-Dinitrophenol	ND	C4, J, Q3, U	0.05	"						
4-Nitrophenol	ND	U	0.05	"						
Dibenzofuran	ND	U	0.01	"						
2,4-Dinitrotoluene	ND	U	0.01	"						
Diethyl phthalate	ND	U	0.01	"						
Fluorene	ND	U	0.01	"						
4-Chlorophenyl phenyl ether	ND	U	0.01	"						
4-Nitroaniline	ND	U	0.05	"						
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	0.05	"						

Prepared: 02/14/06 Analyzed: 02/15/06

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
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SDG: 06041A
Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Batch B6B0063 - Leachate Extraction -

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SVOCs, TCLP

Blank (B6B0063-BLK1)

Diphenyl amine	ND	U	0.01	"						
4-Bromophenyl phenyl ether	ND	U	0.01	"						
Hexachlorobenzene	ND	U	0.01	"						
Pentachlorophenol	ND	Q3, J, U	0.05	"						
Phenanthrene	ND	U	0.01	"						
Anthracene	ND	U	0.01	"						
Carbazole	ND	U	0.01	"						
Di-n-butyl phthalate	ND	U	0.01	"						
Fluoranthene	ND	U	0.01	"						
Pyrene	ND	U	0.01	"						
Butyl benzyl phthalate	ND	U	0.01	"						
Benzo(a)anthracene	ND	U	0.01	"						
3,3'-Dichlorobenzidine	ND	C3, J, U	0.05	"						
Chrysene	ND	U	0.01	"						
bis(2-Ethylhexyl) phthalate	ND	U	0.01	"						
Di-n-octyl phthalate	ND	C3, J, U	0.01	"						
Benzo(b)fluoranthene	ND	U	0.01	"						
Benzo(k)fluoranthene	ND	U	0.01	"						
Benzo(a)pyrene	ND	U	0.01	"						
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.01	"						
Dibenz(a,h)anthracene	ND	C3, J, U	0.01	"						
Benzo(g,h,i)perylene	ND	U	0.01	"						
<i>Surrogate: 1,4-Dioxane-d8</i>	0.0373			"	0.0500	75	18-130			
<i>Surrogate: 2-Fluorophenol</i>	0.579			"	0.750	77	32-130			
<i>Surrogate: Phenol-d5</i>	0.594			"	0.750	79	42-120			
<i>Surrogate: 2-Chlorophenol-d4</i>	0.598			"	0.750	80	42-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	0.350			"	0.500	70	24-110			
<i>Surrogate: Nitrobenzene-d5</i>	0.397			"	0.500	79	27-140			
<i>Surrogate: 2-Fluorobiphenyl</i>	0.403			"	0.500	81	45-110			
<i>Surrogate: 2,4,6-Tribromophenol</i>	0.681			"	0.750	91	44-140			
<i>Surrogate: Terphenyl-d14</i>	0.643			"	0.500	129	28-140			

Blank (B6B0063-BLK2)

1,4-Dioxane	ND	U	0.01	mg/L
Phenol	ND	Q2, J, U	0.05	"
bis(2-Chloroethyl)ether	ND	Q2, J, U	0.01	"
2-Chlorophenol	ND	U	0.05	"
1,3-Dichlorobenzene	ND	U	0.01	"
1,4-Dichlorobenzene	ND	U	0.01	"
Benzyl alcohol	ND	U	0.05	"
1,2-Dichlorobenzene	ND	U	0.01	"
2-Methylphenol	ND	J, C3, U	0.05	"
2,2'-oxybis(1-Chloropropane)	ND	U	0.01	"
3&4-Methylphenol	ND	Q2, J, C3, U	0.05	"
N-Nitrosodipropylamine	ND	U	0.01	"



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Batch B6B0063 - Leachate Extraction -

SVOCs, TCLP

Blank (B6B0063-BLK2)

Hexachloroethane	ND	U	0.01	"						
Nitrobenzene	ND	U	0.01	"						
Isophorone	ND	U	0.01	"						
2-Nitrophenol	ND	U	0.05	"						
2,4-Dimethylphenol	ND	U	0.05	"						
bis(2-Chloroethoxy)methane	ND	U	0.01	"						
2,4-Dichlorophenol	ND	U	0.05	"						
1,2,4-Trichlorobenzene	ND	U	0.01	"						
Naphthalene	ND	U	0.01	"						
4-Chloroaniline	ND	U	0.05	"						
Hexachlorobutadiene	ND	U	0.01	"						
4-Chloro-3-methylphenol	ND	U	0.05	"						
2-Methylnaphthalene	ND	U	0.01	"						
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.05	"						
2,4,6-Trichlorophenol	ND	U	0.05	"						
2,4,5-Trichlorophenol	ND	U	0.05	"						
2-Chloronaphthalene	ND	U	0.01	"						
2-Nitroaniline	ND	U	0.05	"						
Dimethyl phthalate	ND	U	0.01	"						
Acenaphthylene	ND	U	0.01	"						
2,6-Dinitrotoluene	ND	U	0.01	"						
3-Nitroaniline	ND	U	0.05	"						
Acenaphthene	ND	U	0.01	"						
2,4-Dinitrophenol	ND	C4, J, Q3, U	0.05	"						
4-Nitrophenol	ND	U	0.05	"						
Dibenzofuran	ND	U	0.01	"						
2,4-Dinitrotoluene	ND	U	0.01	"						
Diethyl phthalate	ND	U	0.01	"						
Fluorene	ND	U	0.01	"						
4-Chlorophenyl phenyl ether	ND	U	0.01	"						
4-Nitroaniline	ND	U	0.05	"						
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	0.05	"						
Diphenyl amine	ND	U	0.01	"						
4-Bromophenyl phenyl ether	ND	U	0.01	"						
Hexachlorobenzene	ND	U	0.01	"						
Pentachlorophenol	ND	Q3, J, U	0.05	"						
Phenanthrene	ND	U	0.01	"						
Anthracene	ND	U	0.01	"						
Carbazole	ND	U	0.01	"						
Di-n-butyl phthalate	ND	U	0.01	"						
Fluoranthene	ND	U	0.01	"						
Pyrene	ND	U	0.01	"						
Butyl benzyl phthalate	0.007	J	0.01	"						
Benzo(a)anthracene	ND	U	0.01	"						
3,3'-Dichlorobenzidine	ND	J, C3, U	0.05	"						



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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Batch B6B0063 - Leachate Extraction -

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SVOCs, TCLP

Blank (B6B0063-BLK2)

Chrysene	ND	U	0.01	"						
bis(2-Ethylhexyl) phthalate	0.007	J	0.01	"						
Di-n-octyl phthalate	ND	C3, J, U	0.01	"						
Benzo(b)fluoranthene	ND	U	0.01	"						
Benzo(k)fluoranthene	ND	U	0.01	"						
Benzo(a)pyrene	ND	U	0.01	"						
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.01	"						
Dibenz(a,h)anthracene	ND	C3, J, U	0.01	"						
Benzo(g,h,i)perylene	ND	U	0.01	"						
<i>Surrogate: 1,4-Dioxane-d8</i>	<i>0.0370</i>			"	<i>0.0500</i>		<i>74</i>	<i>18-130</i>		
<i>Surrogate: 2-Fluorophenol</i>	<i>0.571</i>			"	<i>0.750</i>		<i>76</i>	<i>32-130</i>		
<i>Surrogate: Phenol-d5</i>	<i>0.568</i>			"	<i>0.750</i>		<i>76</i>	<i>42-120</i>		
<i>Surrogate: 2-Chlorophenol-d4</i>	<i>0.570</i>			"	<i>0.750</i>		<i>76</i>	<i>42-120</i>		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>0.335</i>			"	<i>0.500</i>		<i>67</i>	<i>24-110</i>		
<i>Surrogate: Nitrobenzene-d5</i>	<i>0.391</i>			"	<i>0.500</i>		<i>78</i>	<i>27-140</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0.392</i>			"	<i>0.500</i>		<i>78</i>	<i>45-110</i>		
<i>Surrogate: 2,4,6-Tribromophenol</i>	<i>0.686</i>			"	<i>0.750</i>		<i>91</i>	<i>44-140</i>		
<i>Surrogate: Terphenyl-d14</i>	<i>0.559</i>			"	<i>0.500</i>		<i>112</i>	<i>28-140</i>		

LCS (B6B0063-BS1)

1,4-Dioxane	0.112	0.01	mg/L	0.100	112	64-130
Phenol	0.336	0.05	"	0.500	67	66-110
bis(2-Chloroethyl)ether	0.095	0.01	"	0.100	95	50-120
2-Chlorophenol	0.351	0.05	"	0.500	70	67-110
1,3-Dichlorobenzene	0.054	0.01	"	0.100	54	39-98
1,4-Dichlorobenzene	0.056	0.01	"	0.100	56	40-97
Benzyl alcohol	0.368	0.05	"	0.500	74	62-140
1,2-Dichlorobenzene	0.058	0.01	"	0.100	58	43-100
2-Methylphenol	0.332	0.05	"	0.500	66	66-110
2,2'-oxybis(1-Chloropropane)	0.071	0.01	"	0.100	71	55-120
3&4-Methylphenol	0.347	0.05	"	0.500	69	69-110
N-Nitrosodipropylamine	0.078	0.01	"	0.100	78	55-120
Hexachloroethane	0.046	0.01	"	0.100	46	32-89
Nitrobenzene	0.077	0.01	"	0.100	77	53-120
Isophorone	0.102	0.01	"	0.100	102	66-110
2-Nitrophenol	0.369	0.05	"	0.500	74	67-110
2,4-Dimethylphenol	0.359	0.05	"	0.500	72	62-120
bis(2-Chloroethoxy)methane	0.077	0.01	"	0.100	77	55-120
2,4-Dichlorophenol	0.374	0.05	"	0.500	75	69-120
1,2,4-Trichlorobenzene	0.059	0.01	"	0.100	59	42-100
Naphthalene	0.070	0.01	"	0.100	70	45-110
4-Chloroaniline	0.406	0.05	"	0.500	81	1.9-160
Hexachlorobutadiene	0.047	0.01	"	0.100	47	31-90
4-Chloro-3-methylphenol	0.476	0.05	"	0.500	95	71-120
2-Methylnaphthalene	0.072	0.01	"	0.100	72	50-110



United States Environmental Protection Agency Region 9 Laboratory

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Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared: 02/14/06 Analyzed: 02/15/06										
Batch B6B0063 - Leachate Extraction -										Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
SVOCs, TCLP										
LCS (B6B0063-BS1)										
Hexachlorocyclopentadiene	ND	U	0.05	"	0.100			7.4-46		
2,4,6-Trichlorophenol	0.492		0.05	"	0.500	98		68-120		
2,4,5-Trichlorophenol	0.387		0.05	"	0.500	77		73-120		
2-Chloronaphthalene	0.074		0.01	"	0.100	74		50-110		
2-Nitroaniline	0.477		0.05	"	0.500	95		69-120		
Dimethyl phthalate	0.094		0.01	"	0.100	94		63-140		
Acenaphthylene	0.083		0.01	"	0.100	83		48-110		
2,6-Dinitrotoluene	0.095		0.01	"	0.100	95		64-120		
3-Nitroaniline	0.513		0.05	"	0.500	103		48-140		
Acenaphthene	0.106		0.01	"	0.100	106		53-110		
2,4-Dinitrophenol	0.482		0.05	"	0.500	96		45-150		
4-Nitrophenol	0.551		0.05	"	0.500	110		58-150		
Dibenzofuran	0.088		0.01	"	0.100	88		60-120		
2,4-Dinitrotoluene	0.097		0.01	"	0.100	97		66-140		
Diethyl phthalate	0.089		0.01	"	0.100	89		64-140		
Fluorene	0.092		0.01	"	0.100	92		55-120		
4-Chlorophenyl phenyl ether	0.089		0.01	"	0.100	89		56-120		
4-Nitroaniline	0.530		0.05	"	0.500	106		47-150		
4,6-Dinitro-2-methylphenol	0.507		0.05	"	0.500	101		69-130		
Diphenyl amine	0.083		0.01	"	0.100	83		14-120		
4-Bromophenyl phenyl ether	0.089		0.01	"	0.100	89		61-130		
Hexachlorobenzene	0.088		0.01	"	0.100	88		68-110		
Pentachlorophenol	0.528		0.05	"	0.500	106		67-140		
Phenanthrene	0.094		0.01	"	0.100	94		60-120		
Anthracene	0.085		0.01	"	0.100	85		57-110		
Carbazole	0.079		0.01	"	0.100	79		49-140		
Di-n-butyl phthalate	0.098		0.01	"	0.100	98		61-150		
Fluoranthene	0.093		0.01	"	0.100	93		64-120		
Pyrene	0.100		0.01	"	0.100	100		62-120		
Butyl benzyl phthalate	0.111		0.01	"	0.100	111		59-160		
Benzo(a)anthracene	0.092		0.01	"	0.100	92		61-120		
3,3'-Dichlorobenzidine	0.501		0.05	"	0.500	100		42-140		
Chrysene	0.092		0.01	"	0.100	92		63-120		
bis(2-Ethylhexyl) phthalate	0.112		0.01	"	0.100	112		64-160		
Di-n-octyl phthalate	0.096		0.01	"	0.100	96		60-150		
Benzo(b)fluoranthene	0.091		0.01	"	0.100	91		59-120		
Benzo(k)fluoranthene	0.100		0.01	"	0.100	100		64-120		
Benzo(a)pyrene	0.086		0.01	"	0.100	86		56-110		
Indeno(1,2,3-cd)pyrene	0.097		0.01	"	0.100	97		61-120		
Dibenz(a,h)anthracene	0.107		0.01	"	0.100	107		64-120		
Benzo(g,h,i)perylene	0.097		0.01	"	0.100	97		63-120		
Surrogate: 1,4-Dioxane-d8	0.0292			"	0.0500	58		18-130		
Surrogate: 2-Fluorophenol	0.465			"	0.750	62		32-130		
Surrogate: Phenol-d5	0.452			"	0.750	60		42-120		
Surrogate: 2-Chlorophenol-d4	0.470			"	0.750	63		42-120		



United States Environmental Protection Agency Region 9 Laboratory

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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared: 02/14/06 Analyzed: 02/15/06										
Batch B6B0063 - Leachate Extraction -										Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
SVOCs, TCLP										
LCS (B6B0063-BS1)										
Surrogate: 1,2-Dichlorobenzene-d4	0.272			"	0.500	54	24-110			
Surrogate: Nitrobenzene-d5	0.327			"	0.500	65	27-140			
Surrogate: 2-Fluorobiphenyl	0.340			"	0.500	68	45-110			
Surrogate: 2,4,6-Tribromophenol	0.715			"	0.750	95	44-140			
Surrogate: Terphenyl-d14	0.582			"	0.500	116	28-140			

LCS (B6B0063-BS2)

1,4-Dioxane	0.116		0.01	mg/L	0.100	116	64-130			
Phenol	0.318		0.05	"	0.500	64	66-110			
bis(2-Chloroethyl)ether	0.127		0.01	"	0.100	127	50-120			
2-Chlorophenol	0.378		0.05	"	0.500	76	67-110			
1,3-Dichlorobenzene	0.061		0.01	"	0.100	61	39-98			
1,4-Dichlorobenzene	0.063		0.01	"	0.100	63	40-97			
Benzyl alcohol	0.311		0.05	"	0.500	62	62-140			
1,2-Dichlorobenzene	0.068		0.01	"	0.100	68	43-100			
2-Methylphenol	0.339		0.05	"	0.500	68	66-110			
2,2'-oxybis(1-Chloropropane)	0.076		0.01	"	0.100	76	55-120			
3&4-Methylphenol	0.331		0.05	"	0.500	66	69-110			
N-Nitrosodipropylamine	0.073		0.01	"	0.100	73	55-120			
Hexachloroethane	0.049		0.01	"	0.100	49	32-89			
Nitrobenzene	0.080		0.01	"	0.100	80	53-120			
Isophorone	0.100		0.01	"	0.100	100	66-110			
2-Nitrophenol	0.384		0.05	"	0.500	77	67-110			
2,4-Dimethylphenol	0.367		0.05	"	0.500	73	62-120			
bis(2-Chloroethoxy)methane	0.078		0.01	"	0.100	78	55-120			
2,4-Dichlorophenol	0.388		0.05	"	0.500	78	69-120			
1,2,4-Trichlorobenzene	0.067		0.01	"	0.100	67	42-100			
Naphthalene	0.078		0.01	"	0.100	78	45-110			
4-Chloroaniline	0.403		0.05	"	0.500	81	1.9-160			
Hexachlorobutadiene	0.048		0.01	"	0.100	48	31-90			
4-Chloro-3-methylphenol	0.472		0.05	"	0.500	94	71-120			
2-Methylnaphthalene	0.077		0.01	"	0.100	77	50-110			
Hexachlorocyclopentadiene	ND	U	0.05	"	0.100		7.4-46			
2,4,6-Trichlorophenol	0.468		0.05	"	0.500	94	68-120			
2,4,5-Trichlorophenol	0.423		0.05	"	0.500	85	73-120			
2-Chloronaphthalene	0.075		0.01	"	0.100	75	50-110			
2-Nitroaniline	0.474		0.05	"	0.500	95	69-120			
Dimethyl phthalate	0.092		0.01	"	0.100	92	63-140			
Acenaphthylene	0.081		0.01	"	0.100	81	48-110			
2,6-Dinitrotoluene	0.086		0.01	"	0.100	86	64-120			
3-Nitroaniline	0.503		0.05	"	0.500	101	48-140			
Acenaphthene	0.109		0.01	"	0.100	109	53-110			
2,4-Dinitrophenol	0.529		0.05	"	0.500	106	45-150			
4-Nitrophenol	0.574		0.05	"	0.500	115	58-150			
Dibenzofuran	0.086		0.01	"	0.100	86	60-120			
2,4-Dinitrotoluene	0.096		0.01	"	0.100	96	66-140			



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared: 02/14/06 Analyzed: 02/15/06										
Batch B6B0063 - Leachate Extraction -										Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
SVOCs, TCLP										
LCS (B6B0063-BS2)										
Diethyl phthalate	0.097		0.01	"	0.100	97	64-140			
Fluorene	0.090		0.01	"	0.100	90	55-120			
4-Chlorophenyl phenyl ether	0.088		0.01	"	0.100	88	56-120			
4-Nitroaniline	0.523		0.05	"	0.500	105	47-150			
4,6-Dinitro-2-methylphenol	0.511		0.05	"	0.500	102	69-130			
Diphenyl amine	0.081		0.01	"	0.100	81	14-120			
4-Bromophenyl phenyl ether	0.087		0.01	"	0.100	87	61-130			
Hexachlorobenzene	0.086		0.01	"	0.100	86	68-110			
Pentachlorophenol	0.538		0.05	"	0.500	108	67-140			
Phenanthrene	0.092		0.01	"	0.100	92	60-120			
Anthracene	0.086		0.01	"	0.100	86	57-110			
Carbazole	0.080		0.01	"	0.100	80	49-140			
Di-n-butyl phthalate	0.098		0.01	"	0.100	98	61-150			
Fluoranthene	0.094		0.01	"	0.100	94	64-120			
Pyrene	0.097		0.01	"	0.100	97	62-120			
Butyl benzyl phthalate	0.111		0.01	"	0.100	111	59-160			
Benzo(a)anthracene	0.091		0.01	"	0.100	91	61-120			
3,3'-Dichlorobenzidine	0.531		0.05	"	0.500	106	42-140			
Chrysene	0.091		0.01	"	0.100	91	63-120			
bis(2-Ethylhexyl) phthalate	0.113		0.01	"	0.100	113	64-160			
Di-n-octyl phthalate	0.097		0.01	"	0.100	97	60-150			
Benzo(b)fluoranthene	0.089		0.01	"	0.100	89	59-120			
Benzo(k)fluoranthene	0.097		0.01	"	0.100	97	64-120			
Benzo(a)pyrene	0.085		0.01	"	0.100	85	56-110			
Indeno(1,2,3-cd)pyrene	0.097		0.01	"	0.100	97	61-120			
Dibenz(a,h)anthracene	0.105		0.01	"	0.100	105	64-120			
Benzo(g,h,i)perylene	0.096		0.01	"	0.100	96	63-120			
Surrogate: 1,4-Dioxane-d8	0.0324			"	0.0500	65	18-130			
Surrogate: 2-Fluorophenol	0.537			"	0.750	72	32-130			
Surrogate: Phenol-d5	0.422			"	0.750	56	42-120			
Surrogate: 2-Chlorophenol-d4	0.501			"	0.750	67	42-120			
Surrogate: 1,2-Dichlorobenzene-d4	0.332			"	0.500	66	24-110			
Surrogate: Nitrobenzene-d5	0.342			"	0.500	68	27-140			
Surrogate: 2-Fluorobiphenyl	0.348			"	0.500	70	45-110			
Surrogate: 2,4,6-Tribromophenol	0.707			"	0.750	94	44-140			
Surrogate: Terphenyl-d14	0.556			"	0.500	111	28-140			

Matrix Spike (B6B0063-MS1)

	Source: 0602012-03									
1,4-Dioxane	0.116	0.01	mg/L	0.100	ND	116	59-130			
Phenol	0.359	0.05	"	0.502	ND	72	53-120			
bis(2-Chloroethyl)ether	0.109	0.01	"	0.100	ND	109	0-200			
2-Chlorophenol	0.406	0.05	"	0.502	ND	81	53-110			
1,3-Dichlorobenzene	0.066	0.01	"	0.100	ND	66	0-200			
1,4-Dichlorobenzene	0.069	0.01	"	0.100	ND	69	27-101			
Benzyl alcohol	0.365	0.05	"	0.502	ND	73	0-200			



United States Environmental Protection Agency Region 9 Laboratory

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Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Batch B6B0063 - Leachate Extraction -

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SVOCs, TCLP

Matrix Spike (B6B0063-MS1)

Source: 0602012-03

1,2-Dichlorobenzene	0.073		0.01	"	0.100	ND	73	0-200		
2-Methylphenol	0.360		0.05	"	0.502	ND	72	0-200		
2,2'-oxybis(1-Chloropropane)	0.078		0.01	"	0.100	ND	78	0-200		
3&4-Methylphenol	0.362		0.05	"	0.502	ND	72	0-200		
N-Nitrosodipropylamine	0.077		0.01	"	0.100	ND	77	40-120		
Hexachloroethane	0.055		0.01	"	0.100	ND	55	0-200		
Nitrobenzene	0.092		0.01	"	0.100	ND	92	0-200		
Isophorone	0.102		0.01	"	0.100	ND	102	0-200		
2-Nitrophenol	0.426		0.05	"	0.502	ND	85	0-200		
2,4-Dimethylphenol	0.399		0.05	"	0.502	ND	79	0-200		
bis(2-Chloroethoxy)methane	0.083		0.01	"	0.100	ND	83	0-200		
2,4-Dichlorophenol	0.417		0.05	"	0.502	ND	83	0-200		
1,2,4-Trichlorobenzene	0.072		0.01	"	0.100	ND	72	31-100		
Naphthalene	0.082		0.01	"	0.100	ND	82	0-200		
4-Chloroaniline	0.414		0.05	"	0.502	ND	82	0-200		
Hexachlorobutadiene	0.054		0.01	"	0.100	ND	54	0-200		
4-Chloro-3-methylphenol	0.487		0.05	"	0.502	ND	97	61-130		
2-Methylnaphthalene	0.080		0.01	"	0.100	ND	80	0-200		
Hexachlorocyclopentadiene	ND	U	0.05	"	0.100	ND	0-200			
2,4,6-Trichlorophenol	0.503		0.05	"	0.502	ND	100	0-200		
2,4,5-Trichlorophenol	0.412		0.05	"	0.502	ND	82	0-200		
2-Chloronaphthalene	0.077		0.01	"	0.100	ND	77	0-200		
2-Nitroaniline	0.476		0.05	"	0.502	ND	95	0-200		
Dimethyl phthalate	0.094		0.01	"	0.100	ND	94	0-200		
Acenaphthylene	0.083		0.01	"	0.100	ND	83	0-200		
2,6-Dinitrotoluene	0.083		0.01	"	0.100	ND	83	0-200		
3-Nitroaniline	0.508		0.05	"	0.502	ND	101	0-200		
Acenaphthene	0.110		0.01	"	0.100	ND	110	31-120		
2,4-Dinitrophenol	0.529		0.05	"	0.502	ND	105	0-200		
4-Nitrophenol	0.570		0.05	"	0.502	ND	114	56-160		
Dibenzofuran	0.089		0.01	"	0.100	ND	89	0-200		
2,4-Dinitrotoluene	0.097		0.01	"	0.100	ND	97	38-160		
Diethyl phthalate	0.088		0.01	"	0.100	ND	88	0-200		
Fluorene	0.091		0.01	"	0.100	ND	91	0-200		
4-Chlorophenyl phenyl ether	0.090		0.01	"	0.100	ND	90	0-200		
4-Nitroaniline	0.520		0.05	"	0.502	ND	104	0-200		
4,6-Dinitro-2-methylphenol	0.486		0.05	"	0.502	ND	97	0-200		
Diphenyl amine	0.078		0.01	"	0.100	ND	78	0-200		
4-Bromophenyl phenyl ether	0.088		0.01	"	0.100	ND	88	0-200		
Hexachlorobenzene	0.090		0.01	"	0.100	ND	90	0-200		
Pentachlorophenol	0.557		0.05	"	0.502	ND	111	71-140		
Phenanthrene	0.095		0.01	"	0.100	ND	95	0-200		
Anthracene	0.084		0.01	"	0.100	ND	84	0-200		
Carbazole	0.082		0.01	"	0.100	ND	82	0-200		
Di-n-butyl phthalate	0.099		0.01	"	0.100	ND	99	0-200		



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041A
Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Batch B6B0063 - Leachate Extraction -

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SVOCs, TCLP

Matrix Spike (B6B0063-MS1)

Source: 0602012-03

Fluoranthene	0.095		0.01	"	0.100	ND	95	0-200		
Pyrene	0.097		0.01	"	0.100	ND	97	46-130		
Butyl benzyl phthalate	0.112		0.01	"	0.100	ND	112	0-200		
Benzo(a)anthracene	0.091		0.01	"	0.100	ND	91	0-200		
3,3'-Dichlorobenzidine	0.490		0.05	"	0.502	ND	98	0-200		
Chrysene	0.094		0.01	"	0.100	ND	94	0-200		
bis(2-Ethylhexyl) phthalate	0.111		0.01	"	0.100	0.007	104	0-200		
Di-n-octyl phthalate	0.096		0.01	"	0.100	ND	96	0-200		
Benzo(b)fluoranthene	0.091		0.01	"	0.100	ND	91	0-200		
Benzo(k)fluoranthene	0.100		0.01	"	0.100	ND	100	0-200		
Benzo(a)pyrene	0.085		0.01	"	0.100	ND	85	0-200		
Indeno(1,2,3-cd)pyrene	0.100		0.01	"	0.100	ND	100	0-200		
Dibenz(a,h)anthracene	0.110		0.01	"	0.100	ND	110	0-200		
Benzo(g,h,i)perylene	0.099		0.01	"	0.100	ND	99	0-200		
Surrogate: 1,4-Dioxane-d8	0.0331			"	0.0502		66	18-130		
Surrogate: 2-Fluorophenol	0.541			"	0.752		72	32-130		
Surrogate: Phenol-d5	0.478			"	0.752		64	42-120		
Surrogate: 2-Chlorophenol-d4	0.535			"	0.752		71	42-120		
Surrogate: 1,2-Dichlorobenzene-d4	0.344			"	0.502		69	24-110		
Surrogate: Nitrobenzene-d5	0.370			"	0.502		74	27-140		
Surrogate: 2-Fluorobiphenyl	0.356			"	0.502		71	45-110		
Surrogate: 2,4,6-Tribromophenol	0.726			"	0.752		97	44-140		
Surrogate: Terphenyl-d14	0.555			"	0.502		111	28-140		

Matrix Spike Dup (B6B0063-MSD1)

Source: 0602012-03

1,4-Dioxane	0.114	0.01	mg/L	0.0994	ND	115	59-130	2	20
Phenol	0.334	0.05	"	0.497	ND	67	53-120	7	20
bis(2-Chloroethyl)ether	0.100	0.01	"	0.0994	ND	101	0-200	9	200
2-Chlorophenol	0.387	0.05	"	0.497	ND	78	53-110	5	20
1,3-Dichlorobenzene	0.070	0.01	"	0.0994	ND	70	0-200	6	200
1,4-Dichlorobenzene	0.072	0.01	"	0.0994	ND	72	27-101	4	20
Benzyl alcohol	0.346	0.05	"	0.497	ND	70	0-200	5	200
1,2-Dichlorobenzene	0.076	0.01	"	0.0994	ND	76	0-200	4	200
2-Methylphenol	0.343	0.05	"	0.497	ND	69	0-200	5	200
2,2'-oxybis(1-Chloropropane)	0.077	0.01	"	0.0994	ND	77	0-200	1	200
3&4-Methylphenol	0.347	0.05	"	0.497	ND	70	0-200	4	200
N-Nitrosodipropylamine	0.077	0.01	"	0.0994	ND	77	40-120	0	20
Hexachloroethane	0.058	0.01	"	0.0994	ND	58	0-200	5	200
Nitrobenzene	0.088	0.01	"	0.0994	ND	89	0-200	4	200
Isophorone	0.104	0.01	"	0.0994	ND	105	0-200	2	200
2-Nitrophenol	0.410	0.05	"	0.497	ND	82	0-200	4	200
2,4-Dimethylphenol	0.384	0.05	"	0.497	ND	77	0-200	4	200
bis(2-Chloroethoxy)methane	0.081	0.01	"	0.0994	ND	81	0-200	2	200
2,4-Dichlorophenol	0.405	0.05	"	0.497	ND	81	0-200	3	200
1,2,4-Trichlorobenzene	0.075	0.01	"	0.0994	ND	75	31-100	4	20



United States Environmental Protection Agency Region 9 Laboratory

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SDG: 06041A
Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/14/06 Analyzed: 02/15/06

Batch B6B0063 - Leachate Extraction -

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

SVOCs, TCLP

Matrix Spike Dup (B6B0063-MSD1) Source: 0602012-03

Naphthalene	0.081		0.01	"	0.0994	ND	81	0-200	1	200
4-Chloroaniline	0.416		0.05	"	0.497	ND	84	0-200	0.5	200
Hexachlorobutadiene	0.056		0.01	"	0.0994	ND	56	0-200	4	200
4-Chloro-3-methylphenol	0.494		0.05	"	0.497	ND	99	61-130	1	20
2-Methylnaphthalene	0.081		0.01	"	0.0994	ND	81	0-200	1	200
Hexachlorocyclopentadiene	ND	U	0.05	"	0.0994	ND		0-200		200
2,4,6-Trichlorophenol	0.495		0.05	"	0.497	ND	100	0-200	2	200
2,4,5-Trichlorophenol	0.396		0.05	"	0.497	ND	80	0-200	4	200
2-Chloronaphthalene	0.076		0.01	"	0.0994	ND	76	0-200	1	200
2-Nitroaniline	0.466		0.05	"	0.497	ND	94	0-200	2	200
Dimethyl phthalate	0.091		0.01	"	0.0994	ND	92	0-200	3	200
Acenaphthylene	0.083		0.01	"	0.0994	ND	84	0-200	0	200
2,6-Dinitrotoluene	0.092		0.01	"	0.0994	ND	93	0-200	10	200
3-Nitroaniline	0.495		0.05	"	0.497	ND	100	0-200	3	200
Acenaphthene	0.110		0.01	"	0.0994	ND	111	31-120	0	20
2,4-Dinitrophenol	0.531		0.05	"	0.497	ND	107	0-200	0.4	200
4-Nitrophenol	0.556		0.05	"	0.497	ND	112	56-160	2	20
Dibenzofuran	0.087		0.01	"	0.0994	ND	88	0-200	2	200
2,4-Dinitrotoluene	0.093		0.01	"	0.0994	ND	94	38-160	4	20
Diethyl phthalate	0.084		0.01	"	0.0994	ND	85	0-200	5	200
Fluorene	0.090		0.01	"	0.0994	ND	91	0-200	1	200
4-Chlorophenyl phenyl ether	0.088		0.01	"	0.0994	ND	89	0-200	2	200
4-Nitroaniline	0.503		0.05	"	0.497	ND	101	0-200	3	200
4,6-Dinitro-2-methylphenol	0.508		0.05	"	0.497	ND	102	0-200	4	200
Diphenyl amine	0.081		0.01	"	0.0994	ND	81	0-200	4	200
4-Bromophenyl phenyl ether	0.087		0.01	"	0.0994	ND	88	0-200	1	200
Hexachlorobenzene	0.087		0.01	"	0.0994	ND	88	0-200	3	200
Pentachlorophenol	0.550		0.05	"	0.497	ND	111	71-140	1	20
Phenanthrene	0.094		0.01	"	0.0994	ND	95	0-200	1	200
Anthracene	0.081		0.01	"	0.0994	ND	81	0-200	4	200
Carbazole	0.079		0.01	"	0.0994	ND	79	0-200	4	200
Di-n-butyl phthalate	0.093		0.01	"	0.0994	ND	94	0-200	6	200
Fluoranthene	0.090		0.01	"	0.0994	ND	91	0-200	5	200
Pyrene	0.096		0.01	"	0.0994	ND	97	46-130	1	20
Butyl benzyl phthalate	0.106		0.01	"	0.0994	ND	107	0-200	6	200
Benzo(a)anthracene	0.088		0.01	"	0.0994	ND	89	0-200	3	200
3,3'-Dichlorobenzidine	0.512		0.05	"	0.497	ND	103	0-200	4	200
Chrysene	0.091		0.01	"	0.0994	ND	92	0-200	3	200
bis(2-Ethylhexyl) phthalate	0.109		0.01	"	0.0994	0.007	103	0-200	2	200
Di-n-octyl phthalate	0.095		0.01	"	0.0994	ND	96	0-200	1	200
Benzo(b)fluoranthene	0.089		0.01	"	0.0994	ND	90	0-200	2	200
Benzo(k)fluoranthene	0.097		0.01	"	0.0994	ND	98	0-200	3	200
Benzo(a)pyrene	0.086		0.01	"	0.0994	ND	87	0-200	1	200
Indeno(1,2,3-cd)pyrene	0.098		0.01	"	0.0994	ND	99	0-200	2	200
Dibenz(a,h)anthracene	0.107		0.01	"	0.0994	ND	108	0-200	3	200



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Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041A

Reported: 02/24/06 14:32

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared: 02/14/06 Analyzed: 02/15/06										
Batch B6B0063 - Leachate Extraction -										
Semivolatile Organic Compounds by EPA Method 8270C - Quality Control										
SVOCs, TCLP										
Matrix Spike Dup (B6B0063-MSD1)		Source: 0602012-03								
Benzo(g,h,i)perylene	0.097		0.01	"	0.0994	ND	98	0-200	2	200
Surrogate: 1,4-Dioxane-d8	0.0320			"	0.0497		64	18-130		
Surrogate: 2-Fluorophenol	0.526			"	0.746		71	32-130		
Surrogate: Phenol-d5	0.445			"	0.746		60	42-120		
Surrogate: 2-Chlorophenol-d4	0.512			"	0.746		69	42-120		
Surrogate: 1,2-Dichlorobenzene-d4	0.359			"	0.497		72	24-110		
Surrogate: Nitrobenzene-d5	0.356			"	0.497		72	27-140		
Surrogate: 2-Fluorobiphenyl	0.354			"	0.497		71	45-110		
Surrogate: 2,4,6-Tribromophenol	0.704			"	0.746		94	44-140		
Surrogate: Terphenyl-d14	0.569			"	0.497		114	28-140		



United States Environmental Protection Agency

Region 9 Laboratory

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Qualifiers and Comments

- Q3 The quantitation limit standard did not meet recovery criteria for this analyte.
- Q2 The laboratory control standard associated with this sample did not meet recovery criteria for this analyte (see LCS results for this batch in QC summary).
- N TIC Tentatively Identified Compound - This compound was identified only by match with mass spectral library.
Identification and quantitation should be considered tentative and presumptive.
- J The reported result for this analyte should be considered an estimated value.
- C4 The calibration verification check did not meet % difference criteria for this analyte.
- C3 The initial calibration for this analyte did not meet calibration criteria.
- C1 The reported concentration for this analyte is below the quantitation limit.
- B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.
- U Not Detected
- NR Not Reported



**United States Environmental Protection Agency
Region 9 Laboratory**
1337 S. 46th Street Building 201
Richmond, CA 94804

Subject: Analytical Testing Results - Project R06S25
SDG: 06041C

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: John Hillenbrand
Private Site and DOE Section
SFD-8-2

Attached are the results from the analysis of samples from the **ASARCO Feb 2006 IDW Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this

Mercury	Metals, ICP
Metals, ICP/MS	



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Reported: 02/21/06 14:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
MY2DA7	0602013-04	Water	02/07/06 18:15	02/09/06 14:50
MY2DA8	0602013-05	Water	02/07/06 17:15	02/09/06 14:50
MY2DA9	0602013-06	Water	02/07/06 17:45	02/09/06 14:50



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Reported: 02/21/06 14:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-04								Water - Sampled: 02/07/06 18:15
Sample ID: MY2DA7								Metals by EPA 200 Series Methods
Mercury	0.023	C1, J	0.030	ug/L	B6B0071	02/15/06	02/15/06	245.1/SOP515
Boron	100		100	"	B6B0043	02/10/06	02/13/06	200.7/SOP505
Calcium	130000		100	"	"	"	"	200.7/SOP505
Iron	ND	U	100	"	"	"	"	200.7/SOP505
Magnesium	100000		500	"	"	"	"	200.7/SOP505
Potassium	7100		5000	"	"	"	"	200.7/SOP505
Sodium	110000		500	"	"	"	"	200.7/SOP505
Aluminum	23		20	"	B6B0044	02/10/06	02/14/06	200.8/SOP507
Antimony	ND	U	1.0	"	"	"	02/14/06	200.8/SOP507
Arsenic	5.1		1.0	"	"	"	"	200.8/SOP507
Barium	43		1.0	"	"	"	"	200.8/SOP507
Beryllium	ND	U	0.50	"	"	"	02/15/06	200.8/SOP507
Cadmium	ND	U	1.0	"	"	"	02/14/06	200.8/SOP507
Chromium	16		1.0	"	"	"	"	200.8/SOP507
Cobalt	2.2		0.50	"	"	"	"	200.8/SOP507
Copper	3.4		2.0	"	"	"	"	200.8/SOP507
Lead	ND	U	2.0	"	"	"	"	200.8/SOP507
Manganese	17		2.0	"	"	"	"	200.8/SOP507
Molybdenum	9.6		0.50	"	"	"	"	200.8/SOP507
Nickel	ND	U	40	"	"	"	02/14/06	200.8/SOP507
Selenium	7.2		1.0	"	"	"	02/14/06	200.8/SOP507
Silver	0.48	C1, J	0.50	"	"	"	"	200.8/SOP507
Thallium	ND	U	2.0	"	"	"	"	200.8/SOP507
Vanadium	17		4.0	"	"	"	"	200.8/SOP507
Zinc	ND	U	5.0	"	"	"	"	200.8/SOP507
Lab ID: 0602013-05								Water - Sampled: 02/07/06 17:15
Sample ID: MY2DA8								Metals by EPA 200 Series Methods
Mercury	0.016	C1, J	0.030	ug/L	B6B0071	02/15/06	02/15/06	245.1/SOP515
Boron	100		100	"	B6B0043	02/10/06	02/13/06	200.7/SOP505
Calcium	130000		100	"	"	"	02/13/06	200.7/SOP505
Iron	ND	U	100	"	"	"	02/13/06	200.7/SOP505
Magnesium	110000		500	"	"	"	02/13/06	200.7/SOP505
Potassium	7200		5000	"	"	"	"	200.7/SOP505
Sodium	110000		500	"	"	"	"	200.7/SOP505
Aluminum	26		20	"	B6B0044	02/10/06	02/14/06	200.8/SOP507
Antimony	ND	U	1.0	"	"	"	02/14/06	200.8/SOP507
Arsenic	5.0		1.0	"	"	"	"	200.8/SOP507
Barium	43		1.0	"	"	"	"	200.8/SOP507
Beryllium	ND	U	0.50	"	"	"	02/15/06	200.8/SOP507
Cadmium	ND	U	1.0	"	"	"	02/14/06	200.8/SOP507
Chromium	16		1.0	"	"	"	"	200.8/SOP507
Cobalt	2.2		0.50	"	"	"	"	200.8/SOP507
Copper	3.4		2.0	"	"	"	"	200.8/SOP507
Lead	ND	U	2.0	"	"	"	"	200.8/SOP507



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Private Site and DOE Section
75 Hawthorne Street
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SDG: 06041C
Reported: 02/21/06 14:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-05								Water - Sampled: 02/07/06 17:15
Sample ID: MY2DA8								Metals by EPA 200 Series Methods
Manganese	17		2.0	ug/L	B6B0044	02/10/06	02/14/06	200.8/SOP507
Molybdenum	9.4		0.50	"	"	"	"	200.8/SOP507
Nickel	ND	Q4, J, U	40	"	"	"	02/14/06	200.8/SOP507
Selenium	6.9		1.0	"	"	"	02/14/06	200.8/SOP507
Silver	0.29	C1, J	0.50	"	"	"	"	200.8/SOP507
Thallium	ND	U	2.0	"	"	"	"	200.8/SOP507
Vanadium	17		4.0	"	"	"	"	200.8/SOP507
Zinc	ND	U	5.0	"	"	"	"	200.8/SOP507
Lab ID: 0602013-06								Water - Sampled: 02/07/06 17:45
Sample ID: MY2DA9								Metals by EPA 200 Series Methods
Mercury	0.015	C1, J	0.030	ug/L	B6B0071	02/15/06	02/15/06	245.1/SOP515
Aluminum	870		200	"	B6B0043	02/10/06	02/13/06	200.7/SOP505
Boron	180		100	"	"	"	"	200.7/SOP505
Calcium	68000		100	"	"	"	"	200.7/SOP505
Iron	660		100	"	"	"	"	200.7/SOP505
Magnesium	15000		500	"	"	"	"	200.7/SOP505
Potassium	5200		5000	"	"	"	"	200.7/SOP505
Sodium	150000		500	"	"	"	"	200.7/SOP505
Antimony	ND	U	1.0	"	B6B0044	02/10/06	02/14/06	200.8/SOP507
Arsenic	7.0		1.0	"	"	"	"	200.8/SOP507
Barium	35		1.0	"	"	"	"	200.8/SOP507
Beryllium	ND	U	0.50	"	"	"	02/15/06	200.8/SOP507
Cadmium	ND	U	1.0	"	"	"	02/14/06	200.8/SOP507
Chromium	3.4		1.0	"	"	"	"	200.8/SOP507
Cobalt	0.59		0.50	"	"	"	"	200.8/SOP507
Copper	11		2.0	"	"	"	"	200.8/SOP507
Lead	ND	U	2.0	"	"	"	"	200.8/SOP507
Manganese	13		2.0	"	"	"	"	200.8/SOP507
Molybdenum	13		0.50	"	"	"	"	200.8/SOP507
Nickel	ND	U	20	"	"	"	02/14/06	200.8/SOP507
Selenium	0.96	C1, J	1.0	"	"	"	02/14/06	200.8/SOP507
Silver	ND	U	0.50	"	"	"	"	200.8/SOP507
Thallium	ND	U	2.0	"	"	"	"	200.8/SOP507
Vanadium	7.8		4.0	"	"	"	"	200.8/SOP507
Zinc	40		5.0	"	"	"	"	200.8/SOP507



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Reported: 02/21/06 14:52

R9Q

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/10/06 Analyzed: 02/13/06

Batch B6B0043 - 200 Series Digest -

Metals by EPA 200 Series Methods - Quality Control

Metals, ICP

Blank (B6B0043-BLK1)

Aluminum	ND	U	200	ug/L						
Boron	ND	U	100	"						
Calcium	ND	U	100	"						
Iron	ND	U	100	"						
Magnesium	ND	U	500	"						
Potassium	ND	U	5000	"						
Sodium	ND	U	500	"						

LCS (B6B0043-BS1)

Aluminum	2000		200	ug/L	2000	100	85-115			
Boron	290		100	"	300	97	85-115			
Calcium	1020		100	"	1000	102	85-115			
Iron	3110		100	"	3000	104	85-115			
Magnesium	2030		500	"	2000	102	85-115			
Potassium	10100		5000	"	10000	101	85-115			
Sodium	3020		500	"	3000	101	85-115			

Matrix Spike (B6B0043-MS1)

Source: 0602013-05

Aluminum	1950		200	ug/L	2000	ND	98	70-130		
Boron	388		100	"	300	102	95	70-130		
Calcium	130000	Q10	100	"	1000	130000	0	70-130		
Iron	2950		100	"	3000	ND	98	70-130		
Magnesium	108000		500	"	2000	106000	100	70-130		
Potassium	17300		5000	"	10000	7240	101	70-130		
Sodium	114000	Q10	500	"	3000	112000	67	70-130		

Matrix Spike Dup (B6B0043-MSD1)

Source: 0602013-05

Aluminum	1960		200	ug/L	2000	ND	98	70-130	0.5	20
Boron	395		100	"	300	102	98	70-130	2	20
Calcium	132000	Q10	100	"	1000	130000	200	70-130	2	20
Iron	2990		100	"	3000	ND	100	70-130	1	20
Magnesium	109000	Q10	500	"	2000	106000	150	70-130	0.9	20
Potassium	17300		5000	"	10000	7240	101	70-130	0	20
Sodium	115000		500	"	3000	112000	100	70-130	0.9	20

Prepared: 02/10/06 Analyzed: 02/14/06

Batch B6B0044 - 200 Series Digest -

Metals by EPA 200 Series Methods - Quality Control

Metals, ICP/MS

Blank (B6B0044-BLK1)

Aluminum	ND	U	20	ug/L						
Antimony	ND	U	1.0	"						
Arsenic	ND	U	1.0	"						
Barium	ND	U	1.0	"						
Beryllium	ND	U	0.50	"						
Cadmium	ND	U	1.0	"						
Chromium	ND	U	1.0	"						
Cobalt	ND	U	0.50	"						
Copper	ND	U	2.0	"						



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Reported: 02/21/06 14:52

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/10/06 Analyzed: 02/14/06

Batch B6B0044 - 200 Series Digest -

Metals by EPA 200 Series Methods - Quality Control

Metals, ICP/MS

Blank (B6B0044-BLK1)

Lead	ND	U	2.0	"						
Manganese	ND	U	2.0	"						
Molybdenum	ND	U	0.50	"						
Nickel	ND	U	1.0	"						
Selenium	ND	U	1.0	"						
Silver	ND	U	0.50	"						
Thallium	ND	U	2.0	"						
Vanadium	ND	U	4.0	"						
Zinc	ND	U	5.0	"						

LCS (B6B0044-BS1)

Aluminum	44.3		20	ug/L	40.0	111	85-115			
Antimony	40.9		1.0	"	40.0	102	85-115			
Arsenic	42.0		1.0	"	40.0	105	85-115			
Barium	39.1		1.0	"	40.0	98	85-115			
Beryllium	39.8		0.50	"	40.0	100	85-115			
Cadmium	39.6		1.0	"	40.0	99	85-115			
Chromium	42.1		1.0	"	40.0	105	85-115			
Cobalt	38.2		0.50	"	40.0	96	85-115			
Copper	38.1		2.0	"	40.0	95	85-115			
Lead	38.3		2.0	"	40.0	96	85-115			
Manganese	40.1		2.0	"	40.0	100	85-115			
Molybdenum	40.5		0.50	"	40.0	101	85-115			
Nickel	39.3		1.0	"	40.0	98	85-115			
Selenium	39.5		1.0	"	40.0	99	85-115			
Silver	38.9		0.50	"	40.0	97	85-115			
Thallium	36.1		2.0	"	40.0	90	85-115			
Vanadium	38.9		4.0	"	40.0	97	85-115			
Zinc	39.8		5.0	"	40.0	100	85-115			

Matrix Spike (B6B0044-MS1)

Aluminum	64.4		20	ug/L	40.0	25.6	97	70-130		
Antimony	40.1		1.0	"	40.0	ND	100	70-130		
Arsenic	53.4		1.0	"	40.0	5.01	121	70-130		
Barium	80.7		1.0	"	40.0	43.4	93	70-130		
Beryllium	35.4		0.50	"	40.0	ND	88	70-130		
Cadmium	37.9		1.0	"	40.0	ND	95	70-130		
Chromium	61.8		1.0	"	40.0	16.3	114	70-130		
Cobalt	37.0		0.50	"	40.0	2.22	87	70-130		
Copper	34.9		2.0	"	40.0	3.42	79	70-130		
Lead	32.6		2.0	"	40.0	ND	82	70-130		
Manganese	54.1		2.0	"	40.0	17.1	92	70-130		
Molybdenum	50.3		0.50	"	40.0	9.39	102	70-130		
Nickel	55.8	Q4	40	"	40.0	ND	140	70-130		
Selenium	45.7		1.0	"	40.0	6.87	97	70-130		
Silver	35.3		0.50	"	40.0	0.287	88	70-130		
Thallium	31.4		2.0	"	40.0	ND	78	70-130		



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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/10/06 Analyzed: 02/14/06

Batch B6B0044 - 200 Series Digest -

Metals by EPA 200 Series Methods - Quality Control

Metals, ICP/MS

Matrix Spike (B6B0044-MS1)

Source: 0602013-05

Vanadium	53.7		4.0	"	40.0	16.8	92	70-130		
Zinc	38.6		5.0	"	40.0	ND	96	70-130		

Matrix Spike Dup (B6B0044-MSD1)

Source: 0602013-05

Aluminum	66.1		20	ug/L	40.0	25.6	101	70-130	3	20
Antimony	40.0		1.0	"	40.0	ND	100	70-130	0.2	20
Arsenic	53.4		1.0	"	40.0	5.01	121	70-130	0	20
Barium	79.0		1.0	"	40.0	43.4	89	70-130	2	20
Beryllium	33.5		0.50	"	40.0	ND	84	70-130	6	20
Cadmium	37.8		1.0	"	40.0	ND	94	70-130	0.3	20
Chromium	64.6		1.0	"	40.0	16.3	121	70-130	4	20
Cobalt	36.8		0.50	"	40.0	2.22	86	70-130	0.5	20
Copper	35.2		2.0	"	40.0	3.42	79	70-130	0.9	20
Lead	31.9		2.0	"	40.0	ND	80	70-130	2	20
Manganese	54.2		2.0	"	40.0	17.1	93	70-130	0.2	20
Molybdenum	49.7		0.50	"	40.0	9.39	101	70-130	1	20
Nickel	54.5	Q4	40	"	40.0	ND	136	70-130	2	20
Selenium	46.8		1.0	"	40.0	6.87	100	70-130	2	20
Silver	35.3		0.50	"	40.0	0.287	88	70-130	0	20
Thallium	30.8		2.0	"	40.0	ND	77	70-130	2	20
Vanadium	52.7		4.0	"	40.0	16.8	90	70-130	2	20
Zinc	39.4		5.0	"	40.0	ND	98	70-130	2	20

Prepared & Analyzed: 02/15/06

Batch B6B0071 - 245.1 Hg Prep. -

Metals by EPA 200 Series Methods - Quality Control

Mercury

Blank (B6B0071-BLK1)

Mercury	ND	U	0.030	ug/L						
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LCS (B6B0071-BS1)

Mercury	0.210		0.030	ug/L	0.200		105	85-115		
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Matrix Spike (B6B0071-MS1)

Source: 0602013-05

Mercury	0.218		0.030	ug/L	0.200	0.016	101	70-130		
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Matrix Spike Dup (B6B0071-MSD1)

Source: 0602013-05

Mercury	0.217		0.030	ug/L	0.200	0.016	100	70-130	0.5	20
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SDG: 06041C

Reported: 02/21/06 14:52

Qualifiers and Comments

- Q4 The matrix spike and/or matrix spike duplicate associated with this sample did not meet recovery criteria for this analyte (see MS/MSD results for this batch in QC summary)
- Q10 The analyte concentration in the unfortified sample is significantly greater than the concentration spiked into the matrix spike and matrix spike duplicate. The reported spike recovery is not a meaningful measure of the dataset's analytical accuracy.
- J The reported result for this analyte should be considered an estimated value.
- C1 The reported concentration for this analyte is below the quantitation limit.
- U Not Detected
- NR Not Reported



**United States Environmental Protection Agency
Region 9 Laboratory**
1337 S. 46th Street Building 201
Richmond, CA 94804

Subject: Analytical Testing Results - Project R06S25
SDG: 06041C

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: John Hillenbrand
Private Site and DOE Section
SFD-8-2

Attached are the results from the analysis of samples from the **ASARCO Feb 2006 IDW Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this

VOCs



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 03/03/06 09:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
Y2DA7	0602013-01	Water	02/07/06 18:15	02/09/06 14:50
Y2DA8	0602013-02	Water	02/07/06 17:15	02/09/06 14:50
Y2DA9	0602013-03	Water	02/07/06 17:45	02/09/06 14:50

VOC: The samples were received above the recommended temperature range of 2 - 6 degrees C at 10 degrees C. This may affect the data quality. MS/MSD QC samples were not analyzed because insufficient sample was provided.



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Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 03/03/06 09:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-01								Water - Sampled: 02/07/06 18:15
Sample ID: Y2DA7								Volatile Organic Compounds by EPA Method 524.2
Dichlorodifluoromethane	ND	A2, J, U	0.5	ug/L	B6B0057	02/13/06	02/13/06	524.2/SOP354
Chloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Vinyl chloride	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Trichlorofluoromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloroethene	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloro-1,2,2-trifluoroethane(ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
Freon 113)								
Acetone	16	A2, J	4.0	"	"	"	"	524.2/SOP354
Dichloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
trans-1,2-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
tert-Butyl methyl ether (MTBE)	ND	A2, J, U	2.0	"	"	"	"	524.2/SOP354
1,1-Dichloroethane	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
2,2-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
cis-1,2-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2-Butanone (MEK)	ND	A2, J, U	4.0	"	"	"	"	524.2/SOP354
Bromochloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chloroform	0.5	A2, J	0.5	"	"	"	"	524.2/SOP354
1,1,1-Trichloroethane	8.9	A2, J	0.5	"	"	"	"	524.2/SOP354
Carbon tetrachloride	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloropropene	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
Benzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Trichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Dibromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromodichloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
cis-1,3-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Toluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
trans-1,3-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloroethane	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
Tetrachloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chlorodibromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromoethane (EDB)	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,1,2-Tetrachloroethane	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
Ethylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
m&p-Xylene	ND	A2, J, U	1.0	"	"	"	"	524.2/SOP354
o-Xylene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Styrene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromoform	ND	C3, J, A2, U	0.5	"	"	"	"	524.2/SOP354
Isopropylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354



United States Environmental Protection Agency Region 9 Laboratory

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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 03/03/06 09:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-01								
Sample ID: Y2DA7								
1,1,2,2-Tetrachloroethane	ND	A2, U, J	0.5	ug/L	B6B0057	02/13/06	02/13/06	524.2/SOP354
1,2,3-Trichloropropane	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
Propylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2-Chlorotoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
4-Chlorotoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3,5-Trimethylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
tert-Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,4-Trimethylbenzene	ND	A2, U, J	0.5	"	"	"	"	524.2/SOP354
sec-Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
p-Isopropyltoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,4-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromo-3-chloropropane	ND	C3, J, A2, U	2.0	"	"	"	"	524.2/SOP354
1,2,4-Trichlorobenzene	0.9	A2, J	0.5	"	"	"	"	524.2/SOP354
Hexachlorobutadiene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Naphthalene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichlorobenzene	0.8	A2, J	0.5	"	"	"	"	524.2/SOP354
Surrogate: 1,2-Dichloroethane-d4	5.40		108 %	76-130%	"	"	"	
Surrogate: Toluene-d8	5.12		102 %	83-120%	"	"	"	
Surrogate: 4-Bromofluorobenzene	4.96		99 %	74-110%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	4.77		95 %	69-120%	"	"	"	

Lab ID: 0602013-02								
Sample ID: Y2DA8								
Dichlorodifluoromethane	ND	A2, J, U	0.5	ug/L	B6B0057	02/13/06	02/13/06	524.2/SOP354
Chloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Vinyl chloride	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Trichlorofluoromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloroethene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Acetone	15	J, A2	4.0	"	"	"	"	524.2/SOP354
Dichloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
trans-1,2-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
tert-Butyl methyl ether (MTBE)	ND	A2, J, U	2.0	"	"	"	"	524.2/SOP354
1,1-Dichloroethane	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
2,2-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
cis-1,2-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2-Butanone (MEK)	ND	A2, J, U	4.0	"	"	"	"	524.2/SOP354
Bromochloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chloroform	0.5	A2, J	0.5	"	"	"	"	524.2/SOP354



United States Environmental Protection Agency Region 9 Laboratory

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Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 03/03/06 09:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-02								Water - Sampled: 02/07/06 17:15
Sample ID: Y2DA8								Volatile Organic Compounds by EPA Method 524.2
1,1,1-Trichloroethane	8.7	A2, J	0.5	ug/L	B6B0057	02/13/06	02/13/06	524.2/SOP354
Carbon tetrachloride	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloropropene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
Benzene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Trichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Dibromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromodichloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
cis-1,3-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Toluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
trans-1,3-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloroethane	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
Tetrachloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chlorodibromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromoethane (EDB)	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,1,2-Tetrachloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Ethylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
m&p-Xylene	ND	A2, J, U	1.0	"	"	"	"	524.2/SOP354
o-Xylene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Styrene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromoform	ND	C3, J, A2, U	0.5	"	"	"	"	524.2/SOP354
Isopropylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromobenzene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
1,1,2,2-Tetrachloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichloropropene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
Propylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2-Chlorotoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
4-Chlorotoluene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
1,3,5-Trimethylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
tert-Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,4-Trimethylbenzene	ND	J, A2, U	0.5	"	"	"	"	524.2/SOP354
sec-Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
p-Isopropyltoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,4-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromo-3-chloropropane	ND	C3, J, A2, U	2.0	"	"	"	"	524.2/SOP354
1,2,4-Trichlorobenzene	0.9	J, A2	0.5	"	"	"	"	524.2/SOP354
Hexachlorobutadiene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Naphthalene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichlorobenzene	0.8	J, A2	0.5	"	"	"	"	524.2/SOP354



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Reported: 03/03/06 09:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-02								Water - Sampled: 02/07/06 17:15
Sample ID: Y2DA8								Volatile Organic Compounds by EPA Method 524.2
Surrogate: 1,2-Dichloroethane-d4	5.47		109 %	76-130%	B6B0057	02/13/06	02/13/06	
Surrogate: Toluene-d8	5.08		102 %	83-120%	"	"	"	
Surrogate: 4-Bromofluorobenzene	4.94		99 %	74-110%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	4.71		94 %	69-120%	"	"	"	

Lab ID: 0602013-03								Water - Sampled: 02/07/06 17:45
Sample ID: Y2DA9								Volatile Organic Compounds by EPA Method 524.2

Dichlorodifluoromethane	ND	A2, J, U	0.5	ug/L	B6B0057	02/13/06	02/13/06	524.2/SOP354
Chloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Vinyl chloride	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Trichlorofluoromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloro-1,2,2-trifluoroethane(ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Freon 113)								
Acetone	14	A2, J	4.0	"	"	"	"	524.2/SOP354
Dichloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
trans-1,2-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
tert-Butyl methyl ether (MTBE)	ND	A2, J, U	2.0	"	"	"	"	524.2/SOP354
1,1-Dichloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2,2-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
cis-1,2-Dichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2-Butanone (MEK)	ND	A2, J, U	4.0	"	"	"	"	524.2/SOP354
Bromochloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chloroform	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,1-Trichloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Carbon tetrachloride	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Benzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Trichloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Dibromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromodichloromethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
cis-1,3-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Toluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
trans-1,3-Dichloropropene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,2-Trichloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Tetrachloroethene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chlorodibromomethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromoethane (EDB)	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Chlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,1,2-Tetrachloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 03/03/06 09:52

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-03								Water - Sampled: 02/07/06 17:45
Sample ID: Y2DA9								Volatile Organic Compounds by EPA Method 524.2
Ethylbenzene	ND	A2, J, U	0.5	ug/L	B6B0057	02/13/06	02/13/06	524.2/SOP354
m&p-Xylene	ND	A2, J, U	1.0	"	"	"	"	524.2/SOP354
o-Xylene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Styrene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromoform	ND	A2, C3, J, U	0.5	"	"	"	"	524.2/SOP354
Isopropylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Bromobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,1,2,2-Tetrachloroethane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichloropropane	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Propylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
2-Chlorotoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
4-Chlorotoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3,5-Trimethylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
tert-Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,4-Trimethylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
sec-Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,3-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
p-Isopropyltoluene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,4-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Butylbenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2-Dibromo-3-chloropropane	ND	A2, C3, J, U	2.0	"	"	"	"	524.2/SOP354
1,2,4-Trichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Hexachlorobutadiene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Naphthalene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
1,2,3-Trichlorobenzene	ND	A2, J, U	0.5	"	"	"	"	524.2/SOP354
Surrogate: 1,2-Dichloroethane-d4	5.52		110 %		76-130%	"	"	"
Surrogate: Toluene-d8	5.13		103 %		83-120%	"	"	"
Surrogate: 4-Bromofluorobenzene	5.07		101 %		74-110%	"	"	"
Surrogate: 1,2-Dichlorobenzene-d4	4.79		96 %		69-120%	"	"	"



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Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 03/03/06 09:52

R9Q

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared & Analyzed: 02/13/06										
Batch B6B0057 - - General VOA - VOCs										
Volatile Organic Compounds by EPA Method 524.2 - Quality Control										
Blank (B6B0057-BLK1)										
Dichlorodifluoromethane	ND	U	0.5	ug/L						
Chloromethane	ND	U	0.5	"						
Vinyl chloride	ND	U	0.5	"						
Bromomethane	ND	U	0.5	"						
Chloroethane	ND	U	0.5	"						
Trichlorofluoromethane	ND	U	0.5	"						
1,1-Dichloroethene	ND	U	0.5	"						
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	ND	U	0.5	"						
Acetone	ND	U	4.0	"						
Dichloromethane	ND	U	0.5	"						
trans-1,2-Dichloroethene	ND	U	0.5	"						
tert-Butyl methyl ether (MTBE)	ND	U	2.0	"						
1,1-Dichloroethane	ND	U	0.5	"						
2,2-Dichloropropane	ND	U	0.5	"						
cis-1,2-Dichloroethene	ND	U	0.5	"						
2-Butanone (MEK)	ND	U	4.0	"						
Bromochloromethane	ND	U	0.5	"						
Chloroform	ND	U	0.5	"						
1,1,1-Trichloroethane	ND	U	0.5	"						
Carbon tetrachloride	ND	U	0.5	"						
1,1-Dichloropropene	ND	U	0.5	"						
Benzene	ND	U	0.5	"						
1,2-Dichloroethane	ND	U	0.5	"						
Trichloroethene	ND	U	0.5	"						
1,2-Dichloropropane	ND	U	0.5	"						
Dibromomethane	ND	U	0.5	"						
Bromodichloromethane	ND	U	0.5	"						
cis-1,3-Dichloropropene	ND	U	0.5	"						
4-Methyl-2-pentanone (MIBK)	ND	U	4.0	"						
Toluene	ND	U	0.5	"						
trans-1,3-Dichloropropene	ND	U	0.5	"						
1,1,2-Trichloroethane	ND	U	0.5	"						
Tetrachloroethene	ND	U	0.5	"						
1,3-Dichloropropane	ND	U	0.5	"						
2-Hexanone	ND	U	4.0	"						
Chlorodibromomethane	ND	U	0.5	"						
1,2-Dibromoethane (EDB)	ND	U	0.5	"						
Chlorobenzene	ND	U	0.5	"						
1,1,1,2-Tetrachloroethane	ND	U	0.5	"						
Ethylbenzene	ND	U	0.5	"						
m&p-Xylene	ND	U	1.0	"						
o-Xylene	ND	U	0.5	"						
Styrene	ND	U	0.5	"						
Bromoform	ND	C3, J, U	0.5	"						
Isopropylbenzene	ND	U	0.5	"						



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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared & Analyzed: 02/13/06

Batch B6B0057 - - General VOA - VOCs

Volatile Organic Compounds by EPA Method 524.2 - Quality Control

Blank (B6B0057-BLK1)

Bromobenzene	ND	U	0.5	"						
1,1,2,2-Tetrachloroethane	ND	U	0.5	"						
1,2,3-Trichloropropane	ND	U	0.5	"						
Propylbenzene	ND	U	0.5	"						
2-Chlorotoluene	ND	U	0.5	"						
4-Chlorotoluene	ND	U	0.5	"						
1,3,5-Trimethylbenzene	ND	U	0.5	"						
tert-Butylbenzene	ND	U	0.5	"						
1,2,4-Trimethylbenzene	ND	U	0.5	"						
sec-Butylbenzene	ND	U	0.5	"						
1,3-Dichlorobenzene	ND	U	0.5	"						
p-Isopropyltoluene	ND	U	0.5	"						
1,4-Dichlorobenzene	ND	U	0.5	"						
1,2-Dichlorobenzene	ND	U	0.5	"						
Butylbenzene	ND	U	0.5	"						
1,2-Dibromo-3-chloropropane	ND	C3, J, U	2.0	"						
1,2,4-Trichlorobenzene	ND	U	0.5	"						
Hexachlorobutadiene	ND	U	0.5	"						
Naphthalene	ND	U	0.5	"						
1,2,3-Trichlorobenzene	ND	U	0.5	"						
<i>Surrogate: 1,2-Dichloroethane-d4</i>	5.58			"	5.00		112	76-130		
<i>Surrogate: Toluene-d8</i>	5.02			"	5.00		100	83-120		
<i>Surrogate: 4-Bromofluorobenzene</i>	4.98			"	5.00		100	74-110		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	4.81			"	5.00		96	69-120		

LCS (B6B0057-BS1)

Dichlorodifluoromethane	4.23	0.5	ug/L	5.00		85	5.7-180
Chloromethane	4.77	0.5	"	5.00		95	47-140
Vinyl chloride	5.08	0.5	"	5.00		102	60-140
Bromomethane	5.49	0.5	"	5.00		110	50-160
Chloroethane	5.22	0.5	"	5.00		104	68-140
Trichlorofluoromethane	5.29	0.5	"	5.00		106	63-150
1,1-Dichloroethene	5.15	0.5	"	5.00		103	62-140
1,1,2-Trichloro-1,2,2-trifluoroethane(Freon 113)	5.28	0.5	"	5.00		106	53-150
Acetone	39.5	4.0	"	40.0		99	32-190
Dichloromethane	4.93	0.5	"	5.00		99	62-120
trans-1,2-Dichloroethene	5.33	0.5	"	5.00		107	70-140
tert-Butyl methyl ether (MTBE)	20.4	2.0	"	20.0		102	59-150
1,1-Dichloroethane	4.59	0.5	"	5.00		92	70-140
2,2-Dichloropropane	4.66	0.5	"	5.00		93	60-150
cis-1,2-Dichloroethene	4.39	0.5	"	5.00		88	67-140
2-Butanone (MEK)	37.4	4.0	"	40.0		94	58-150
Bromochloromethane	4.20	0.5	"	5.00		84	55-150
Chloroform	4.47	0.5	"	5.00		89	62-140
1,1,1-Trichloroethane	5.20	0.5	"	5.00		104	76-140
Carbon tetrachloride	5.18	0.5	"	5.00		104	62-150



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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 03/03/06 09:52

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared & Analyzed: 02/13/06										
Batch B6B0057 - - General VOA - VOCs										
Volatile Organic Compounds by EPA Method 524.2 - Quality Control										
LCS (B6B0057-BS1)										
1,1-Dichloropropene	5.14		0.5	"	5.00	103	75-130			
Benzene	5.21		0.5	"	5.00	104	79-120			
1,2-Dichloroethane	5.21		0.5	"	5.00	104	77-120			
Trichloroethene	5.14		0.5	"	5.00	103	79-140			
1,2-Dichloropropane	5.33		0.5	"	5.00	107	82-120			
Dibromomethane	5.13		0.5	"	5.00	103	80-120			
Bromodichloromethane	5.35		0.5	"	5.00	107	80-130			
cis-1,3-Dichloropropene	5.24		0.5	"	5.00	105	81-130			
Toluene	5.26		0.5	"	5.00	105	83-120			
trans-1,3-Dichloropropene	5.26		0.5	"	5.00	105	80-140			
1,1,2-Trichloroethane	5.28		0.5	"	5.00	106	80-120			
Tetrachloroethene	4.86		0.5	"	5.00	97	80-130			
1,3-Dichloropropane	5.22		0.5	"	5.00	104	78-120			
Chlorodibromomethane	5.25		0.5	"	5.00	105	80-130			
1,2-Dibromoethane (EDB)	5.25		0.5	"	5.00	105	83-120			
Chlorobenzene	5.17		0.5	"	5.00	103	85-120			
1,1,1,2-Tetrachloroethane	5.36		0.5	"	5.00	107	82-130			
Ethylbenzene	5.43		0.5	"	5.00	109	83-120			
m&p-Xylene	10.9		1.0	"	10.0	109	82-120			
o-Xylene	5.37		0.5	"	5.00	107	83-130			
Styrene	5.43		0.5	"	5.00	109	84-120			
Bromoform	5.22		0.5	"	5.00	104	72-140			
Isopropylbenzene	5.42		0.5	"	5.00	108	83-130			
Bromobenzene	5.02		0.5	"	5.00	100	84-120			
1,1,2,2-Tetrachloroethane	5.29		0.5	"	5.00	106	80-120			
1,2,3-Trichloropropane	5.09		0.5	"	5.00	102	79-130			
Propylbenzene	5.51		0.5	"	5.00	110	83-130			
2-Chlorotoluene	5.40		0.5	"	5.00	108	84-120			
4-Chlorotoluene	5.45		0.5	"	5.00	109	85-120			
1,3,5-Trimethylbenzene	5.55		0.5	"	5.00	111	84-120			
tert-Butylbenzene	5.31		0.5	"	5.00	106	83-130			
1,2,4-Trimethylbenzene	5.47		0.5	"	5.00	109	86-120			
sec-Butylbenzene	5.44		0.5	"	5.00	109	81-130			
1,3-Dichlorobenzene	5.20		0.5	"	5.00	104	83-120			
p-Isopropyltoluene	5.60		0.5	"	5.00	112	83-130			
1,4-Dichlorobenzene	5.40		0.5	"	5.00	108	79-120			
1,2-Dichlorobenzene	5.19		0.5	"	5.00	104	80-120			
Butylbenzene	5.58		0.5	"	5.00	112	83-130			
1,2-Dibromo-3-chloropropane	22.6		2.0	"	20.0	113	64-131			
1,2,4-Trichlorobenzene	4.99		0.5	"	5.00	100	74-140			
Hexachlorobutadiene	4.84		0.5	"	5.00	97	76-130			
Naphthalene	5.10		0.5	"	5.00	102	64-150			
1,2,3-Trichlorobenzene	4.88		0.5	"	5.00	98	58-150			
Surrogate: 1,2-Dichloroethane-d4	5.06			"	5.00	101	76-130			
Surrogate: Toluene-d8	5.10			"	5.00	102	83-120			
Surrogate: 4-Bromofluorobenzene	5.09			"	5.00	102	74-110			



United States Environmental Protection Agency Region 9 Laboratory

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Private Site and DOE Section

SDG: 06041C

Project Number: R06S25

75 Hawthorne Street

Reported: 03/03/06 09:52

Project: ASARCO Feb 2006 IDW Sampling

San Francisco CA, 94105

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Prepared & Analyzed: 02/13/06										
Batch B6B0057 - - General VOA - VOCs										
Volatile Organic Compounds by EPA Method 524.2 - Quality Control										
LCS (B6B0057-BS1)										
Surrogate: 1,2-Dichlorobenzene-d4	5.04		"			5.00			101	69-120



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Reported: 03/03/06 09:52

Qualifiers and Comments

J The reported result for this analyte should be considered an estimated value.

C3 The initial calibration for this analyte did not meet calibration criteria.

A2 The sample received above the recommended temperature range of 2 - 6 degrees C.

U Not Detected

NR Not Reported



**United States Environmental Protection Agency
Region 9 Laboratory**
1337 S. 46th Street Building 201
Richmond, CA 94804

Subject: Analytical Testing Results - Project R06S25
SDG: 06041C

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
PMD-2

To: John Hillenbrand
Private Site and DOE Section
SFD-8-2

Attached are the results from the analysis of samples from the **ASARCO Feb 2006 IDW Sampling** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this

SVOCs



United States Environmental Protection Agency

Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 02/24/06 14:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
Y2DA7	0602013-01	Water	02/07/06 18:15	02/09/06 14:50
Y2DA8	0602013-02	Water	02/07/06 17:15	02/09/06 14:50
Y2DA9	0602013-03	Water	02/07/06 17:45	02/09/06 14:50



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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 02/24/06 14:43

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-01								Water - Sampled: 02/07/06 18:15
Sample ID: Y2DA7								Semivolatile Organic Compounds by EPA Method 8270C
1,4-Dioxane	0.5	C1, J	1.0	ug/L	B6B0054	02/13/06	02/15/06	8270C/SOP315
Phenol	ND	U	5.0	"	"	"	"	8270C/SOP315
bis(2-Chloroethyl)ether	ND	U	1.0	"	"	"	"	8270C/SOP315
2-Chlorophenol	ND	U	5.0	"	"	"	"	8270C/SOP315
1,3-Dichlorobenzene	ND	U	1.0	"	"	"	"	8270C/SOP315
1,4-Dichlorobenzene	ND	U	1.0	"	"	"	"	8270C/SOP315
Benzyl alcohol	ND	U	5.0	"	"	"	"	8270C/SOP315
1,2-Dichlorobenzene	ND	U	1.0	"	"	"	"	8270C/SOP315
2-Methylphenol	ND	C3, J, U	5.0	"	"	"	"	8270C/SOP315
2,2'-oxybis(1-Chloropropane)	ND	U	1.0	"	"	"	"	8270C/SOP315
3&4-Methylphenol	ND	C3, J, U	5.0	"	"	"	"	8270C/SOP315
N-Nitrosodipropylamine	ND	U	1.0	"	"	"	"	8270C/SOP315
Hexachloroethane	ND	U	1.0	"	"	"	"	8270C/SOP315
Nitrobenzene	ND	U	1.0	"	"	"	"	8270C/SOP315
Isophorone	ND	U	1.0	"	"	"	"	8270C/SOP315
2-Nitrophenol	ND	U	5.0	"	"	"	"	8270C/SOP315
2,4-Dimethylphenol	ND	U	5.0	"	"	"	"	8270C/SOP315
bis(2-Chloroethoxy)methane	ND	U	1.0	"	"	"	"	8270C/SOP315
2,4-Dichlorophenol	ND	U	5.0	"	"	"	"	8270C/SOP315
1,2,4-Trichlorobenzene	0.8	C1, J	1.0	"	"	"	"	8270C/SOP315
Naphthalene	ND	U	1.0	"	"	"	"	8270C/SOP315
4-Chloroaniline	ND	U	5.0	"	"	"	"	8270C/SOP315
Hexachlorobutadiene	ND	U	1.0	"	"	"	"	8270C/SOP315
4-Chloro-3-methylphenol	ND	U	5.0	"	"	"	"	8270C/SOP315
2-Methylnaphthalene	ND	U	1.0	"	"	"	"	8270C/SOP315
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	1.0	"	"	"	"	8270C/SOP315
2,4,6-Trichlorophenol	ND	U	5.0	"	"	"	"	8270C/SOP315
2,4,5-Trichlorophenol	ND	U	5.0	"	"	"	"	8270C/SOP315
2-Chloronaphthalene	ND	U	1.0	"	"	"	"	8270C/SOP315
2-Nitroaniline	ND	U	5.0	"	"	"	"	8270C/SOP315
Dimethyl phthalate	ND	U	1.0	"	"	"	"	8270C/SOP315
Acenaphthylene	ND	U	1.0	"	"	"	"	8270C/SOP315
2,6-Dinitrotoluene	ND	U	1.0	"	"	"	"	8270C/SOP315
3-Nitroaniline	ND	U	5.0	"	"	"	"	8270C/SOP315
Acenaphthene	ND	U	1.0	"	"	"	"	8270C/SOP315
2,4-Dinitrophenol	ND	C4, J, Q3, U	5.0	"	"	"	"	8270C/SOP315
4-Nitrophenol	ND	U	5.0	"	"	"	"	8270C/SOP315
Dibenzofuran	ND	U	1.0	"	"	"	"	8270C/SOP315
2,4-Dinitrotoluene	ND	U	1.0	"	"	"	"	8270C/SOP315
Diethyl phthalate	ND	U	1.0	"	"	"	"	8270C/SOP315
Fluorene	ND	U	1.0	"	"	"	"	8270C/SOP315
4-Chlorophenyl phenyl ether	ND	U	1.0	"	"	"	"	8270C/SOP315
4-Nitroaniline	ND	U	5.0	"	"	"	"	8270C/SOP315
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	5.0	"	"	"	"	8270C/SOP315
Diphenyl amine	ND	U	1.0	"	"	"	"	8270C/SOP315



United States Environmental Protection Agency Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 02/24/06 14:43

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-01								Water - Sampled: 02/07/06 18:15
Sample ID: Y2DA7								Semivolatile Organic Compounds by EPA Method 8270C
4-Bromophenyl phenyl ether	ND	U	1.0	ug/L	B6B0054	02/13/06	02/15/06	8270C/SOP315
Hexachlorobenzene	ND	U	1.0	"	"	"	"	8270C/SOP315
Pentachlorophenol	ND	Q3, J, U	5.0	"	"	"	"	8270C/SOP315
Phenanthrene	ND	U	1.0	"	"	"	"	8270C/SOP315
Anthracene	ND	U	1.0	"	"	"	"	8270C/SOP315
Carbazole	ND	U	1.0	"	"	"	"	8270C/SOP315
Di-n-butyl phthalate	ND	U	1.0	"	"	"	"	8270C/SOP315
Fluoranthene	ND	U	1.0	"	"	"	"	8270C/SOP315
Pyrene	ND	U	1.0	"	"	"	"	8270C/SOP315
Butyl benzyl phthalate	0.5	C1, J	1.0	"	"	"	"	8270C/SOP315
Benzo(a)anthracene	ND	U	1.0	"	"	"	"	8270C/SOP315
3,3'-Dichlorobenzidine	ND	C3, J, U	5.0	"	"	"	"	8270C/SOP315
Chrysene	ND	U	1.0	"	"	"	"	8270C/SOP315
bis(2-Ethylhexyl) phthalate	1.3	B1, J	1.0	"	"	"	"	8270C/SOP315
Di-n-octyl phthalate	ND	C3, J, U	1.0	"	"	"	"	8270C/SOP315
Benzo(b)fluoranthene	ND	U	1.0	"	"	"	"	8270C/SOP315
Benzo(k)fluoranthene	ND	U	1.0	"	"	"	"	8270C/SOP315
Benzo(a)pyrene	ND	U	1.0	"	"	"	"	8270C/SOP315
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	1.0	"	"	"	"	8270C/SOP315
Dibenz(a,h)anthracene	ND	C3, J, U	1.0	"	"	"	"	8270C/SOP315
Benzo(g,h,i)perylene	ND	U	1.0	"	"	"	"	8270C/SOP315
4-Pyrazolin-3-one, 1-phenyl-	4.9	N TIC, J		"	"	"	"	8270C/SOP315
Indazole, nitro	13	N TIC, J		"	"	"	"	8270C/SOP315
Stigmasterol	11	N TIC, J		"	"	"	"	8270C/SOP315
unknown oxygenated	2.0	N TIC, J		"	"	"	"	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.06		64 %	18-130%	"	"	"	
Surrogate: 2-Fluorophenol	50.0		70 %	32-130%	"	"	"	
Surrogate: Phenol-d5	51.4		72 %	42-120%	"	"	"	
Surrogate: 2-Chlorophenol-d4	52.8		74 %	42-120%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	31.3		66 %	24-110%	"	"	"	
Surrogate: Nitrobenzene-d5	34.6		73 %	27-140%	"	"	"	
Surrogate: 2-Fluorobiphenyl	35.7		75 %	45-110%	"	"	"	
Surrogate: 2,4,6-Tribromophenol	69.1		97 %	44-140%	"	"	"	
Surrogate: Terphenyl-d14	53.4		112 %	28-140%	"	"	"	



United States Environmental Protection Agency Region 9 Laboratory

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Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 02/24/06 14:43

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-02								Water - Sampled: 02/07/06 17:15
Sample ID: Y2DA8								Semivolatile Organic Compounds by EPA Method 8270C
1,4-Dioxane	0.5	C1, J	0.9	ug/L	B6B0054	02/13/06	02/16/06	8270C/SOP315
Phenol	ND	U	4.7	"	"	"	"	8270C/SOP315
bis(2-Chloroethyl)ether	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Chlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
1,3-Dichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
1,4-Dichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzyl alcohol	ND	U	4.7	"	"	"	"	8270C/SOP315
1,2-Dichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Methylphenol	ND	C3, J, U	4.7	"	"	"	"	8270C/SOP315
2,2'-oxybis(1-Chloropropane)	ND	U	0.9	"	"	"	"	8270C/SOP315
3&4-Methylphenol	ND	C3, J, U	4.7	"	"	"	"	8270C/SOP315
N-Nitrosodipropylamine	ND	U	0.9	"	"	"	"	8270C/SOP315
Hexachloroethane	ND	U	0.9	"	"	"	"	8270C/SOP315
Nitrobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Isophorone	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Nitrophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2,4-Dimethylphenol	ND	U	4.7	"	"	"	"	8270C/SOP315
bis(2-Chloroethoxy)methane	ND	U	0.9	"	"	"	"	8270C/SOP315
2,4-Dichlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
1,2,4-Trichlorobenzene	0.8	C1, J	0.9	"	"	"	"	8270C/SOP315
Naphthalene	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Chloroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
Hexachlorobutadiene	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Chloro-3-methylphenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2-Methylnaphthalene	ND	U	0.9	"	"	"	"	8270C/SOP315
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.9	"	"	"	"	8270C/SOP315
2,4,6-Trichlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2,4,5-Trichlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2-Chloronaphthalene	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Nitroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
Dimethyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Acenaphthylene	ND	U	0.9	"	"	"	"	8270C/SOP315
2,6-Dinitrotoluene	ND	U	0.9	"	"	"	"	8270C/SOP315
3-Nitroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
Acenaphthene	ND	U	0.9	"	"	"	"	8270C/SOP315
2,4-Dinitrophenol	ND	C4, J, Q3, U	4.7	"	"	"	"	8270C/SOP315
4-Nitrophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
Dibenzofuran	ND	U	0.9	"	"	"	"	8270C/SOP315
2,4-Dinitrotoluene	ND	U	0.9	"	"	"	"	8270C/SOP315
Diethyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Fluorene	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Chlorophenyl phenyl ether	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Nitroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	4.7	"	"	"	"	8270C/SOP315
Diphenyl amine	ND	U	0.9	"	"	"	"	8270C/SOP315



United States Environmental Protection Agency Region 9 Laboratory

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Project Manager: John Hillenbrand
Project Number: R06S25
Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 02/24/06 14:43

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-02								Water - Sampled: 02/07/06 17:15
Sample ID: Y2DA8								Semivolatile Organic Compounds by EPA Method 8270C
4-Bromophenyl phenyl ether	ND	U	0.9	ug/L	B6B0054	02/13/06	02/16/06	8270C/SOP315
Hexachlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Pentachlorophenol	ND	Q3, J, U	4.7	"	"	"	"	8270C/SOP315
Phenanthrene	ND	U	0.9	"	"	"	"	8270C/SOP315
Anthracene	ND	U	0.9	"	"	"	"	8270C/SOP315
Carbazole	ND	U	0.9	"	"	"	"	8270C/SOP315
Di-n-butyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Fluoranthene	ND	U	0.9	"	"	"	"	8270C/SOP315
Pyrene	ND	U	0.9	"	"	"	"	8270C/SOP315
Butyl benzyl phthalate	0.5	C1, J	0.9	"	"	"	"	8270C/SOP315
Benzo(a)anthracene	ND	U	0.9	"	"	"	"	8270C/SOP315
3,3'-Dichlorobenzidine	ND	C3, J, U	4.7	"	"	"	"	8270C/SOP315
Chrysene	ND	U	0.9	"	"	"	"	8270C/SOP315
bis(2-Ethylhexyl) phthalate	1.4	B1, J	0.9	"	"	"	"	8270C/SOP315
Di-n-octyl phthalate	ND	C3, J, U	0.9	"	"	"	"	8270C/SOP315
Benzo(b)fluoranthene	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzo(k)fluoranthene	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzo(a)pyrene	ND	U	0.9	"	"	"	"	8270C/SOP315
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.9	"	"	"	"	8270C/SOP315
Dibenz(a,h)anthracene	ND	C3, J, U	0.9	"	"	"	"	8270C/SOP315
Benzo(g,h,i)perylene	ND	U	0.9	"	"	"	"	8270C/SOP315
13-Docosenamide, (Z)-	11	N TIC, J		"	"	"	"	8270C/SOP315
Alkane: Branched	5.0	N TIC, J		"	"	"	"	8270C/SOP315
Indazole, nitro	11	N TIC, J		"	"	"	"	8270C/SOP315
Stigmasterol	11	N TIC, J		"	"	"	"	8270C/SOP315
unknown 7	4.9	N TIC, J		"	"	"	"	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	3.13		66 %	18-130%	"	"	"	
Surrogate: 2-Fluorophenol	48.4		68 %	32-130%	"	"	"	
Surrogate: Phenol-d5	48.1		68 %	42-120%	"	"	"	
Surrogate: 2-Chlorophenol-d4	49.0		69 %	42-120%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	27.9		59 %	24-110%	"	"	"	
Surrogate: Nitrobenzene-d5	33.1		70 %	27-140%	"	"	"	
Surrogate: 2-Fluorobiphenyl	33.2		70 %	45-110%	"	"	"	
Surrogate: 2,4,6-Tribromophenol	64.2		90 %	44-140%	"	"	"	
Surrogate: Terphenyl-d14	47.7		100 %	28-140%	"	"	"	



United States Environmental Protection Agency Region 9 Laboratory

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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 02/24/06 14:43

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-03								Water - Sampled: 02/07/06 17:45
Sample ID: Y2DA9								Semivolatile Organic Compounds by EPA Method 8270C
1,4-Dioxane	ND	U	0.9	ug/L	B6B0054	02/13/06	02/16/06	8270C/SOP315
Phenol	ND	U	4.7	"	"	"	"	8270C/SOP315
bis(2-Chloroethyl)ether	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Chlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
1,3-Dichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
1,4-Dichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzyl alcohol	ND	U	4.7	"	"	"	"	8270C/SOP315
1,2-Dichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Methylphenol	ND	C3, J, U	4.7	"	"	"	"	8270C/SOP315
2,2'-oxybis(1-Chloropropane)	ND	U	0.9	"	"	"	"	8270C/SOP315
3&4-Methylphenol	ND	C3, J, U	4.7	"	"	"	"	8270C/SOP315
N-Nitrosodipropylamine	ND	U	0.9	"	"	"	"	8270C/SOP315
Hexachloroethane	ND	U	0.9	"	"	"	"	8270C/SOP315
Nitrobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Isophorone	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Nitrophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2,4-Dimethylphenol	ND	U	4.7	"	"	"	"	8270C/SOP315
bis(2-Chloroethoxy)methane	ND	U	0.9	"	"	"	"	8270C/SOP315
2,4-Dichlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
1,2,4-Trichlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Naphthalene	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Chloroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
Hexachlorobutadiene	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Chloro-3-methylphenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2-Methylnaphthalene	ND	U	0.9	"	"	"	"	8270C/SOP315
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	0.9	"	"	"	"	8270C/SOP315
2,4,6-Trichlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2,4,5-Trichlorophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
2-Chloronaphthalene	ND	U	0.9	"	"	"	"	8270C/SOP315
2-Nitroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
Dimethyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Acenaphthylene	ND	U	0.9	"	"	"	"	8270C/SOP315
2,6-Dinitrotoluene	ND	U	0.9	"	"	"	"	8270C/SOP315
3-Nitroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
Acenaphthene	ND	U	0.9	"	"	"	"	8270C/SOP315
2,4-Dinitrophenol	ND	C4, J, Q3, U	4.7	"	"	"	"	8270C/SOP315
4-Nitrophenol	ND	U	4.7	"	"	"	"	8270C/SOP315
Dibenzofuran	ND	U	0.9	"	"	"	"	8270C/SOP315
2,4-Dinitrotoluene	ND	U	0.9	"	"	"	"	8270C/SOP315
Diethyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Fluorene	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Chlorophenyl phenyl ether	ND	U	0.9	"	"	"	"	8270C/SOP315
4-Nitroaniline	ND	U	4.7	"	"	"	"	8270C/SOP315
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	4.7	"	"	"	"	8270C/SOP315
Diphenyl amine	ND	U	0.9	"	"	"	"	8270C/SOP315



United States Environmental Protection Agency Region 9 Laboratory

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Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section
75 Hawthorne Street
San Francisco CA, 94105

SDG: 06041C
Reported: 02/24/06 14:43

Sample Results

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 0602013-03								Water - Sampled: 02/07/06 17:45
Sample ID: Y2DA9								Semivolatile Organic Compounds by EPA Method 8270C
4-Bromophenyl phenyl ether	ND	U	0.9	ug/L	B6B0054	02/13/06	02/16/06	8270C/SOP315
Hexachlorobenzene	ND	U	0.9	"	"	"	"	8270C/SOP315
Pentachlorophenol	ND	Q3, J, U	4.7	"	"	"	"	8270C/SOP315
Phenanthrene	ND	U	0.9	"	"	"	"	8270C/SOP315
Anthracene	ND	U	0.9	"	"	"	"	8270C/SOP315
Carbazole	ND	U	0.9	"	"	"	"	8270C/SOP315
Di-n-butyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Fluoranthene	ND	U	0.9	"	"	"	"	8270C/SOP315
Pyrene	ND	U	0.9	"	"	"	"	8270C/SOP315
Butyl benzyl phthalate	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzo(a)anthracene	ND	U	0.9	"	"	"	"	8270C/SOP315
3,3'-Dichlorobenzidine	ND	C3, J, U	4.7	"	"	"	"	8270C/SOP315
Chrysene	ND	U	0.9	"	"	"	"	8270C/SOP315
bis(2-Ethylhexyl) phthalate	1.1	B1, J	0.9	"	"	"	"	8270C/SOP315
Di-n-octyl phthalate	ND	C3, J, U	0.9	"	"	"	"	8270C/SOP315
Benzo(b)fluoranthene	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzo(k)fluoranthene	ND	U	0.9	"	"	"	"	8270C/SOP315
Benzo(a)pyrene	ND	U	0.9	"	"	"	"	8270C/SOP315
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	0.9	"	"	"	"	8270C/SOP315
Dibenz(a,h)anthracene	ND	C3, J, U	0.9	"	"	"	"	8270C/SOP315
Benzo(g,h,i)perylene	ND	U	0.9	"	"	"	"	8270C/SOP315
13-Docosenamide, (Z)-	2.4	N TIC, J		"	"	"	"	8270C/SOP315
Ethanol, 2-[2-[2-[p-(1,1...	7.1	N TIC, J		"	"	"	"	8270C/SOP315
Ethanol, 2-[2-[4-(1,1,3,3-t...	30	N TIC, J		"	"	"	"	8270C/SOP315
Ethanol, 2-butoxy-, phospha...	2.4	N TIC, J		"	"	"	"	8270C/SOP315
unknown 10	3.6	N TIC, J		"	"	"	"	8270C/SOP315
unknown 4	7.9	N TIC, J		"	"	"	"	8270C/SOP315
unknown 6	18	N TIC, J		"	"	"	"	8270C/SOP315
unknown 7	2.2	N TIC, J		"	"	"	"	8270C/SOP315
unknown C20H34O4	13	N TIC, J		"	"	"	"	8270C/SOP315
Surrogate: 1,4-Dioxane-d8	2.60		55 %	18-130%	"	"	"	
Surrogate: 2-Fluorophenol	42.0		59 %	32-130%	"	"	"	
Surrogate: Phenol-d5	44.0		62 %	42-120%	"	"	"	
Surrogate: 2-Chlorophenol-d4	43.9		62 %	42-120%	"	"	"	
Surrogate: 1,2-Dichlorobenzene-d4	23.7		50 %	24-110%	"	"	"	
Surrogate: Nitrobenzene-d5	28.9		61 %	27-140%	"	"	"	
Surrogate: 2-Fluorobiphenyl	29.6		62 %	45-110%	"	"	"	
Surrogate: 2,4,6-Tribromophenol	67.7		95 %	44-140%	"	"	"	
Surrogate: Terphenyl-d14	42.8		90 %	28-140%	"	"	"	



United States Environmental Protection Agency Region 9 Laboratory

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Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: John Hillenbrand

Project Number: R06S25

Project: ASARCO Feb 2006 IDW Sampling

Private Site and DOE Section

75 Hawthorne Street

San Francisco CA, 94105

SDG: 06041C

Reported: 02/24/06 14:43

R9Q

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B6B0054 - 3520B CLLE - SVOCs

Prepared: 02/13/06 Analyzed: 02/15/06
Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Blank (B6B0054-BLK1)

1,4-Dioxane	ND	U	1.0	ug/L						
Phenol	ND	U	5.0	"						
bis(2-Chloroethyl)ether	ND	U	1.0	"						
2-Chlorophenol	ND	U	5.0	"						
1,3-Dichlorobenzene	ND	U	1.0	"						
1,4-Dichlorobenzene	ND	U	1.0	"						
Benzyl alcohol	ND	U	5.0	"						
1,2-Dichlorobenzene	ND	U	1.0	"						
2-Methylphenol	ND	J, C3, U	5.0	"						
2,2'-oxybis(1-Chloropropane)	ND	U	1.0	"						
3&4-Methylphenol	ND	J, C3, U	5.0	"						
N-Nitrosodipropylamine	ND	U	1.0	"						
Hexachloroethane	ND	U	1.0	"						
Nitrobenzene	ND	U	1.0	"						
Isophorone	ND	U	1.0	"						
2-Nitrophenol	ND	U	5.0	"						
2,4-Dimethylphenol	ND	U	5.0	"						
bis(2-Chloroethoxy)methane	ND	U	1.0	"						
2,4-Dichlorophenol	ND	U	5.0	"						
1,2,4-Trichlorobenzene	ND	U	1.0	"						
Naphthalene	ND	U	1.0	"						
4-Chloroaniline	ND	U	5.0	"						
Hexachlorobutadiene	ND	U	1.0	"						
4-Chloro-3-methylphenol	ND	U	5.0	"						
2-Methylnaphthalene	ND	U	1.0	"						
Hexachlorocyclopentadiene	ND	C4, J, Q3, U	1.0	"						
2,4,6-Trichlorophenol	ND	U	5.0	"						
2,4,5-Trichlorophenol	ND	U	5.0	"						
2-Chloronaphthalene	ND	U	1.0	"						
2-Nitroaniline	ND	U	5.0	"						
Dimethyl phthalate	ND	U	1.0	"						
Acenaphthylene	ND	U	1.0	"						
2,6-Dinitrotoluene	ND	U	1.0	"						
3-Nitroaniline	ND	U	5.0	"						
Acenaphthene	ND	U	1.0	"						
2,4-Dinitrophenol	ND	C4, J, Q3, U	5.0	"						
4-Nitrophenol	ND	U	5.0	"						
Dibenzofuran	ND	U	1.0	"						
2,4-Dinitrotoluene	ND	U	1.0	"						
Diethyl phthalate	ND	U	1.0	"						
Fluorene	ND	U	1.0	"						
4-Chlorophenyl phenyl ether	ND	U	1.0	"						
4-Nitroaniline	ND	U	5.0	"						
4,6-Dinitro-2-methylphenol	ND	Q3, J, U	5.0	"						
Diphenyl amine	ND	U	1.0	"						



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Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/13/06 Analyzed: 02/15/06

Batch B6B0054 - 3520B CLLE - SVOCs

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Blank (B6B0054-BLK1)

4-Bromophenyl phenyl ether	ND	U	1.0	"						
Hexachlorobenzene	ND	U	1.0	"						
Pentachlorophenol	ND	Q3, J, U	5.0	"						
Phenanthrene	ND	U	1.0	"						
Anthracene	ND	U	1.0	"						
Carbazole	ND	U	1.0	"						
Di-n-butyl phthalate	ND	U	1.0	"						
Fluoranthene	ND	U	1.0	"						
Pyrene	ND	U	1.0	"						
Butyl benzyl phthalate	ND	U	1.0	"						
Benzo(a)anthracene	ND	U	1.0	"						
3,3'-Dichlorobenzidine	ND	C3, J, U	5.0	"						
Chrysene	ND	U	1.0	"						
bis(2-Ethylhexyl) phthalate	0.9	C1, J	1.0	"						
Di-n-octyl phthalate	ND	C3, J, U	1.0	"						
Benzo(b)fluoranthene	ND	U	1.0	"						
Benzo(k)fluoranthene	ND	U	1.0	"						
Benzo(a)pyrene	ND	U	1.0	"						
Indeno(1,2,3-cd)pyrene	ND	C3, J, U	1.0	"						
Dibenz(a,h)anthracene	ND	C3, J, U	1.0	"						
Benzo(g,h,i)perylene	ND	U	1.0	"						
<i>Surrogate: 1,4-Dioxane-d8</i>	3.51			"	5.00		70	18-130		
<i>Surrogate: 2-Fluorophenol</i>	58.8			"	75.0		78	32-130		
<i>Surrogate: Phenol-d5</i>	60.0			"	75.0		80	42-120		
<i>Surrogate: 2-Chlorophenol-d4</i>	60.8			"	75.0		81	42-120		
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	34.6			"	50.0		69	24-110		
<i>Surrogate: Nitrobenzene-d5</i>	40.9			"	50.0		82	27-140		
<i>Surrogate: 2-Fluorobiphenyl</i>	41.0			"	50.0		82	45-110		
<i>Surrogate: 2,4,6-Tribromophenol</i>	68.0			"	75.0		91	44-140		
<i>Surrogate: Terphenyl-d14</i>	62.9			"	50.0		126	28-140		

LCS (B6B0054-BS1)

1,4-Dioxane	11.4	1.0	ug/L	10.0		114	64-130			
Phenol	39.8	5.0	"	50.0		80	66-110			
bis(2-Chloroethyl)ether	10.5	1.0	"	10.0		105	50-120			
2-Chlorophenol	42.2	5.0	"	50.0		84	67-110			
1,3-Dichlorobenzene	5.48	1.0	"	10.0		55	39-98			
1,4-Dichlorobenzene	5.82	1.0	"	10.0		58	40-97			
Benzyl alcohol	43.0	5.0	"	50.0		86	62-140			
1,2-Dichlorobenzene	6.40	1.0	"	10.0		64	43-100			
2-Methylphenol	39.6	5.0	"	50.0		79	66-110			
2,2'-oxybis(1-Chloropropane)	8.10	1.0	"	10.0		81	55-120			
3&4-Methylphenol	39.9	5.0	"	50.0		80	69-110			
N-Nitrosodipropylamine	8.02	1.0	"	10.0		80	55-120			
Hexachloroethane	4.14	1.0	"	10.0		41	32-89			
Nitrobenzene	8.82	1.0	"	10.0		88	53-120			
Isophorone	9.52	1.0	"	10.0		95	66-110			



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SDG: 06041C
Reported: 02/24/06 14:43

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Prepared: 02/13/06 Analyzed: 02/15/06

Batch B6B0054 - 3520B CLLE - SVOCs

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

LCS (B6B0054-BS1)

2-Nitrophenol	42.5		5.0	"	50.0	85	67-110
2,4-Dimethylphenol	39.1		5.0	"	50.0	78	62-120
bis(2-Chloroethoxy)methane	8.16		1.0	"	10.0	82	55-120
2,4-Dichlorophenol	42.3		5.0	"	50.0	85	69-120
1,2,4-Trichlorobenzene	6.39		1.0	"	10.0	64	42-100
Naphthalene	7.92		1.0	"	10.0	79	45-110
4-Chloroaniline	40.8		5.0	"	50.0	82	1.9-160
Hexachlorobutadiene	3.96		1.0	"	10.0	40	31-90
4-Chloro-3-methylphenol	44.8		5.0	"	50.0	90	71-120
2-Methylnaphthalene	7.54		1.0	"	10.0	75	50-110
Hexachlorocyclopentadiene	1.09		1.0	"	10.0	11	7.4-46
2,4,6-Trichlorophenol	47.3		5.0	"	50.0	95	68-120
2,4,5-Trichlorophenol	40.9		5.0	"	50.0	82	73-120
2-Chloronaphthalene	7.41		1.0	"	10.0	74	50-110
2-Nitroaniline	45.8		5.0	"	50.0	92	69-120
Dimethyl phthalate	8.82		1.0	"	10.0	88	63-140
Acenaphthylene	7.89		1.0	"	10.0	79	48-110
2,6-Dinitrotoluene	8.94		1.0	"	10.0	89	64-120
3-Nitroaniline	48.7		5.0	"	50.0	97	48-140
Acenaphthene	10.3		1.0	"	10.0	103	53-110
2,4-Dinitrophenol	48.2		5.0	"	50.0	96	45-150
4-Nitrophenol	53.5		5.0	"	50.0	107	58-150
Dibenzofuran	8.35		1.0	"	10.0	84	60-120
2,4-Dinitrotoluene	9.23		1.0	"	10.0	92	66-140
Diethyl phthalate	8.58		1.0	"	10.0	86	64-140
Fluorene	8.63		1.0	"	10.0	86	55-120
4-Chlorophenyl phenyl ether	8.30		1.0	"	10.0	83	56-120
4-Nitroaniline	49.6		5.0	"	50.0	99	47-150
4,6-Dinitro-2-methylphenol	45.9		5.0	"	50.0	92	69-130
Diphenyl amine	7.81		1.0	"	10.0	78	14-120
4-Bromophenyl phenyl ether	8.42		1.0	"	10.0	84	61-130
Hexachlorobenzene	8.47		1.0	"	10.0	85	68-110
Pentachlorophenol	52.4		5.0	"	50.0	105	67-140
Phenanthrene	9.37		1.0	"	10.0	94	60-120
Anthracene	7.79		1.0	"	10.0	78	57-110
Carbazole	7.42		1.0	"	10.0	74	49-140
Di-n-butyl phthalate	9.42		1.0	"	10.0	94	61-150
Fluoranthene	8.87		1.0	"	10.0	89	64-120
Pyrene	9.34		1.0	"	10.0	93	62-120
Butyl benzyl phthalate	10.6		1.0	"	10.0	106	59-160
Benzo(a)anthracene	9.03		1.0	"	10.0	90	61-120
3,3'-Dichlorobenzidine	49.6		5.0	"	50.0	99	42-140
Chrysene	8.73		1.0	"	10.0	87	63-120
bis(2-Ethylhexyl) phthalate	11.4		1.0	"	10.0	114	64-160
Di-n-octyl phthalate	9.28		1.0	"	10.0	93	60-150
Benzo(b)fluoranthene	8.65		1.0	"	10.0	86	59-120



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SDG: 06041C

Reported: 02/24/06 14:43

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
										Prepared: 02/13/06 Analyzed: 02/15/06
Batch B6B0054 - 3520B CLLE - SVOCs										Semivolatile Organic Compounds by EPA Method 8270C - Quality Control
LCS (B6B0054-BS1)										
Benzo(k)fluoranthene	9.64		1.0	"	10.0	96	64-120			
Benzo(a)pyrene	8.39		1.0	"	10.0	84	56-110			
Indeno(1,2,3-cd)pyrene	9.64		1.0	"	10.0	96	61-120			
Dibenz(a,h)anthracene	10.5		1.0	"	10.0	105	64-120			
Benzo(g,h,i)perylene	9.53		1.0	"	10.0	95	63-120			
<i>Surrogate: 1,4-Dioxane-d8</i>	3.19			"	5.00	64	18-130			
<i>Surrogate: 2-Fluorophenol</i>	53.5			"	75.0	71	32-130			
<i>Surrogate: Phenol-d5</i>	52.8			"	75.0	70	42-120			
<i>Surrogate: 2-Chlorophenol-d4</i>	55.8			"	75.0	74	42-120			
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	31.8			"	50.0	64	24-110			
<i>Surrogate: Nitrobenzene-d5</i>	37.0			"	50.0	74	27-140			
<i>Surrogate: 2-Fluorobiphenyl</i>	34.9			"	50.0	70	45-110			
<i>Surrogate: 2,4,6-Tribromophenol</i>	69.4			"	75.0	93	44-140			
<i>Surrogate: Terphenyl-d14</i>	54.9			"	50.0	110	28-140			



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Qualifiers and Comments

- Q3 The quantitation limit standard did not meet recovery criteria for this analyte.
- N TIC Tentatively Identified Compound - This compound was identified only by match with mass spectral library.
Identification and quantitation should be considered tentative and presumptive.
- J The reported result for this analyte should be considered an estimated value.
- C4 The calibration verification check did not meet % difference criteria for this analyte.
- C3 The initial calibration for this analyte did not meet calibration criteria.
- C1 The reported concentration for this analyte is below the quantitation limit.
- B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.
- U Not Detected
- NR Not Reported